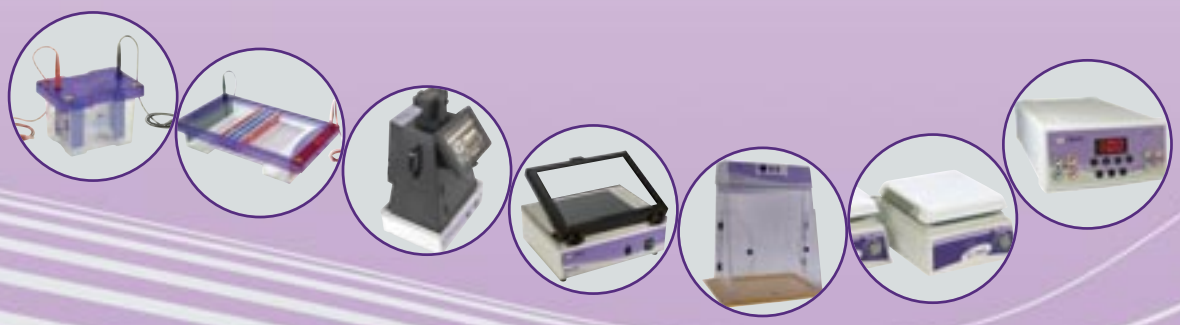
Expertise and Excellence in Electrophoresis

Cleaver Scientific Ltd

Product Catalogue 2010/11



www.cleaverscientific.com

Since its establishment in 2004, Cleaver Scientific Limited, a private family-owned company, has grown into the UK's largest manufacturer of electrophoresis gel tanks and radiation safety equipment.

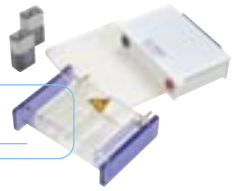
By using the latest state-of-the-art injection moulding manufacturing techniques, Cleaver Scientific has developed a range of electrophoresis products acclaimed for their technical excellence in more than 80 countries worldwide. Each electrophoresis gel tank incorporates the best and most popular features identified within the market by end-users, is CE-marked for safety and manufactured using the highest grade industrial materials noted for their durability and chemical resistance. This is coupled with the expertise and focus of a product development team whose combined experience exceeds four decades within the use, manufacture, sales, support and promotion of electrophoresis products.

URS UKAS QUALITY MANAGEMENT

CERTIFICATE NO. **17533**

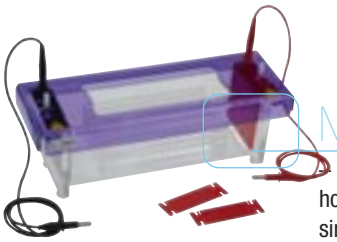
Cleaver Scientific is also an internationally recognised brand name for many general laboratory products, ranging from dry baths to gel documentation systems. Our ongoing commitment to the improvement of our products and systems enabled us to acquire ISO9001 accreditation in 2006, when the Company also received the UK Government Trade and Investment Award for Export.

new product focus



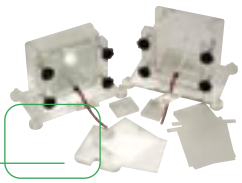
Battery Gel

– low-cost and completely safe as no power supply is required - the perfect system for education (page 11)



MULTISUB-4

by allowing you to run 4 horizontal gels within a single tank, this system is ideal for high throughput genotyping studies in laboratories where bench space is limited (page 13)



Vertical External Casters

– maximise your electrophoretic throughput with our external casting units that allow the gel tank to remain constantly in use (pages 22, 23, 24 and 32)

Gel Documentation

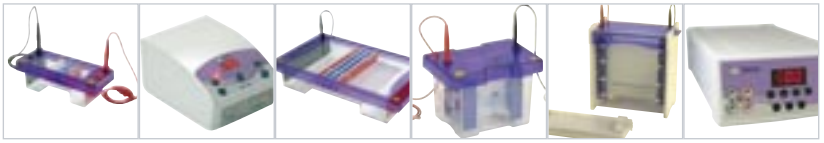
– introducing two new inexpensive, easy to use, high resolution CCD gel documentation systems with recommended software (pages 40 and 41)

UV Crosslinkers

– ideal for fast hybridisation of nucleic acids to membranes (page 42)

Horizontal and Vertical Package Deals

– whether you are a distributor looking for a package to compete with the market leader or an end-user wanting a system for a specific application, Cleaver Scientific will meet your needs with its horizontal and vertical electrophoresis Combination Packages (pages 16 and 32)



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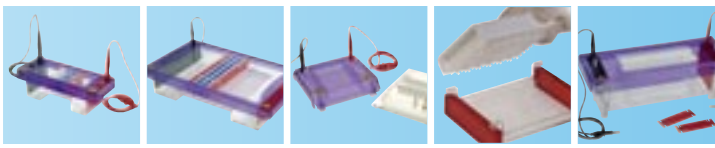

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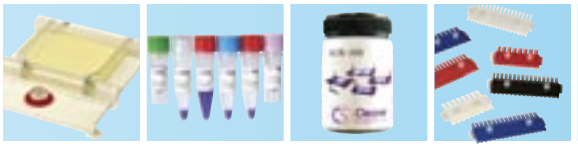

see pages 16/17 for multSUB package deals

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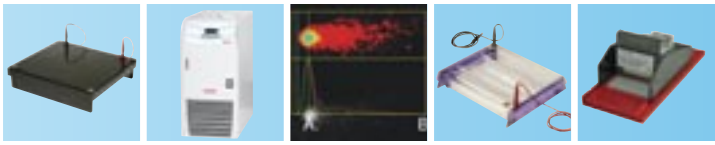
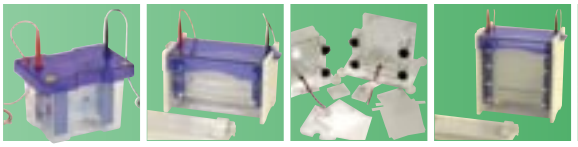


omniPAGE Vertical Slab Gel Systems page **20**



see pages 32/33 for omniPAGE package deals

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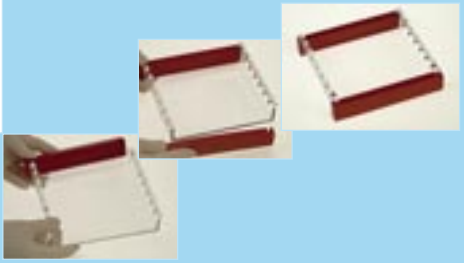
For full index please refer to back cover.

multiSUB....

- **Injection Moulded Construction - durable, leak-proof environment for complete safety and long life**
- **Cassette Type Electrodes – inexpensive, easy to replace. Made of 99.99% corrosion resistant, pure platinum**
- **Electrical Safety – lid can be located in one way only. On removal, power is disconnected from buffer chamber**
- **Multiple Gel Trays – eliminate the need for additional gel tanks**
- **Easy Click Lid Removal**

"plug and go" gel casting



Casting dams allow gels to be rapidly cast externally while the MultiSub unit is in use for gel running

NEW-style Flexicasters allow the casting of varying gel lengths simply by locking the moveable dam. Adjustable feet and level bubble allow gels of uniform thickness to be poured.

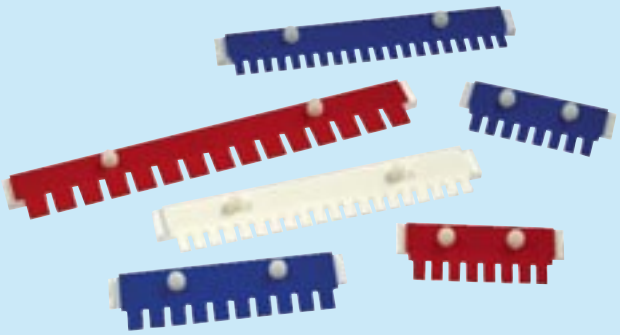
Trays are UV transparent

White PVC platform cover and red loading guides can be optionally applied to enhance well visibility

Gel trays are free of indentations or casting gate channels which can interfere with sample progression

UV transparent Gel Scoops, available for each unit size, offer a safe and easy way to transport gels to a UV Transilluminator

Extensive range of combs

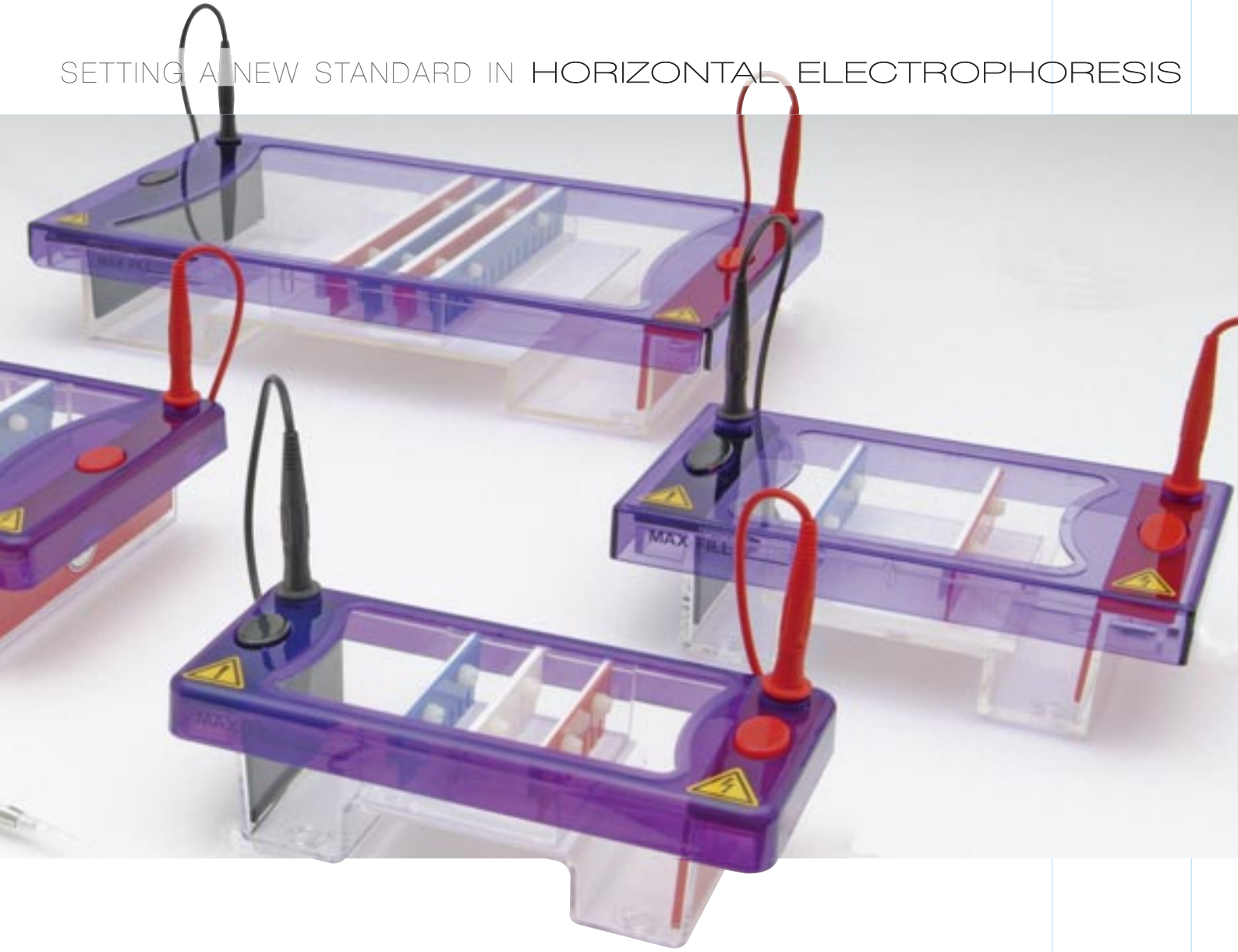


- four thicknesses, colour coded
  - **black:** 0.75mm for ultra resolved bands
  - **white:** 1mm supplied as standard
  - **red** 1.5mm for maximising sample volume
  - **blue** 2mm for maximising sample volume
- options for Sample Prep
- options for MULTI-CHANNEL PIPETTE COMPATIBLE

The number of samples can be maximised using high tooth number combs

All units are CE marked and are in conformity with the relevant CE Safety Directives: 73/23/EEC: LOW VOLTAGE DIRECTIVE: IEC 61010-1:2001. EN 61010-1:2001; 89/336/EEC EMC DIRECTIVE: EN55011 Emissions, EN50082-1 Immunity.

SETTING A NEW STANDARD IN HORIZONTAL ELECTROPHORESIS



The multiSUB series of Horizontal Gel Units offers the most versatile solution for DNA and RNA agarose gel electrophoresis currently available. All five units offer an unsurpassed combination of economy of gel and buffer volume, with gel size and sample number versatility. Gel size and sample number requirements can be exactly matched in each unit, with the option of additional gel tray sizes. This eliminates the need for multiple gel tanks and for changes in gel size or application.

All units contain removable UV transparent trays. For optimum value and versatility, systems are available with one, two or three tray options (dependent on model). Easy to use, leak proof 'plug and go' gel casting dams are included as standard to allow gels to be rapidly cast whilst the multiSUB unit is in use for gel running. With no indentations or casting gate grooves in the tray to interfere with sample progression, traditional tape casting can be used, should this be preferred.

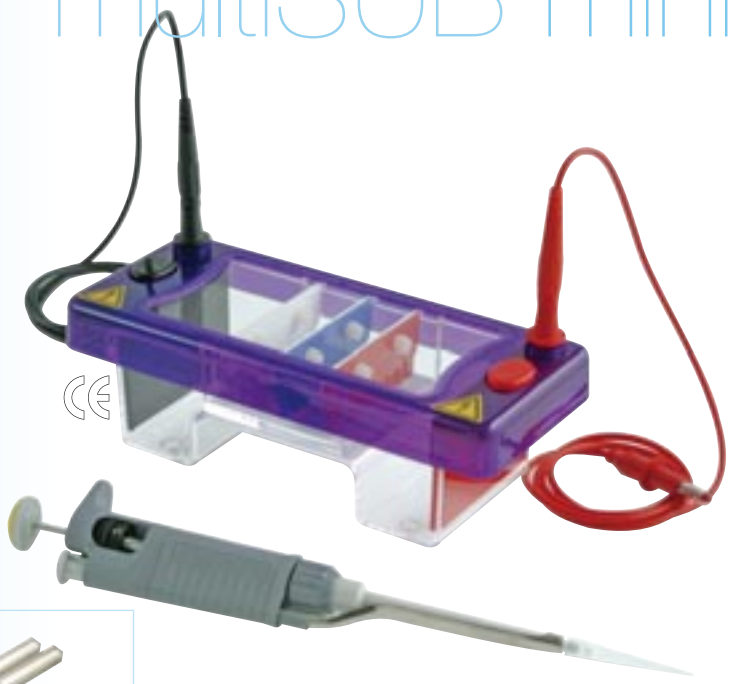
Although lid connectors are compatible with most major power supplies, adapters are available to provide complete compatibility.

high efficiency horizontal gel cooling

Removable gel table allows a Coolpack to sit above the gel in buffer offering enhanced gel resolution and faster run times

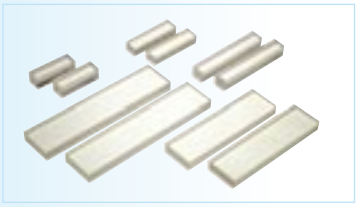
multiSUB mini

- **Available with 7 x 7cm, 7 x 10cm or with both gel trays**
- **Economic low gel and buffer volumes**
- **Small lab bench footprint**



Typical Applications

Designed for quick checks of low to medium numbers of samples



Buffer saver blocks physically reduce the volume of a gel chamber and so reduce buffer requirements, saving cost.

The multiSUB Mini is the smallest unit in the range, designed for low to medium numbers of samples. The small gel size maximises run economy but does not compromise versatility as two tray options are available – 7 x 7cm and 7 x 10cm, and combs ranging from preparative up to 16 samples. Simply by altering the gel tray or comb, this compact unit is capable of resolving up to 64 different samples, prepping 1ml of sample or separating sample bands over a distance of 9cm.

components of multiSUB Mini Duo

Technical Specifications

Gel dimensions, (W x L)	7 x 7cm 7 x 10cm
Unit dimensions (W x L x H)	21 x 9 x 9cm
Max. sample capacity	7 x 7cm tray – 32 samples 7 x 10cm tray – 64 samples
Buffer volume	225ml
Combs available : No. of samples Thicknesses	 1, 2, 4, 8MC, 8, 10, 12MC, 16 0.75, 1, 1.5, 2mm

Ordering Information

MSMINI7	**multiSUB Mini, 7 x 7cm UV Tray, 2 x 8 sample combs, loading guides and dams**				
MSMINI10	**multiSUB Mini, 7 x 10cm UV Tray, 2 x 8 sample combs, loading guides and dams**				
MSMINIDUO	**multiSUB Mini, 7 x 7cm & 7 x 10cm UV Tray, 2 x 8 sample combs, loading guides and dams**				
MS7-UV7	7 x 7cm UV Tray	MS7-LG	Adhesive Loading Guides	MS7-x -yLG	Combination Comb and
MS7-UV10	7 x 10cm UV Tray	MS7-WP	Viewing Platform		Loading Guide
MS7-PE	Positive Electrode	MSMINICP	Cool-pack and Platform		x = comb well no.
MS7-NE	Negative Electrode	MSMINIBSB	Buffer Saver Blocks, pk/2		y = comb thickness
MS7-UVDAM	Casting Dams	saves 100ml of buffer		MS7-UVS	7cm UV Gel Scoop
MS7/10-FC	multiSUB Mini/Midi Flexi caster				

0.75mm

Code	Description	Sample Volume for a 5mm thick gel
MS7-1-0.75	Comb Prep 1, Marker 1, 0.75mm thick	152µl
MS7-2-0.75	Comb Prep 2, Marker 2, 0.75mm thick	68µl
MS7-4-0.75	Comb Prep 4, Marker 2, 0.75mm thick	36µl
MS7-8MC-0.75	Comb 8 sample MC, 0.75mm thick	8µl
MS7-8-0.75	Comb 8 sample, 0.75mm thick	19µl
MS7-10-0.75	Comb 10 sample, 0.75mm thick	14µl
MS7-12MC-0.75	Comb 12 sample MC, 0.75mm thick	10µl
MS7-16-0.75	Comb 16 sample, 0.75mm thick	7µl

1.0mm

Code	Description	Sample Volume for a 5mm thick gel
MS7-1-1	Comb Prep 1, Marker 1, 1mm thick	203µl
MS7-2-1	Comb Prep 2, Marker 2, 1mm thick	90µl
MS7-4-1	Comb Prep 4, Marker 2, 1mm thick	48µl
MS7-8MC-1	Comb 8 sample MC, 1mm thick	11µl
MS7-8-1	Comb 8 sample, 1mm thick	25µl
MS7-10-1	Comb 10 sample, 1mm thick	18µl
MS7-12MC-1	Comb 12 sample MC, 1mm thick	14µl
MS7-16-1	Comb 16 sample, 1mm thick	10µl

1.5mm

Code	Description	Sample Volume for a 5mm thick gel
MS7-1-1.5	Comb Prep 1, Marker 1, 1.5mm thick	304µl
MS7-2-1.5	Comb Prep 2, Marker 2, 1.5mm thick	135µl
MS7-4-1.5	Comb Prep 4, Marker 2, 1.5mm thick	72µl
MS7-8MC-1.5	Comb 8 sample MC, 1.5mm thick	17µl
MS7-8-1.5	Comb 8 sample, 1.5mm thick	37µl
MS7-10-1.5	Comb 10 sample, 1.5mm thick	27µl
MS7-12MC-1.5	Comb 12 sample MC, 1.5mm thick	20µl
MS7-16-1.5	Comb 16 sample, 1.5mm thick	15µl

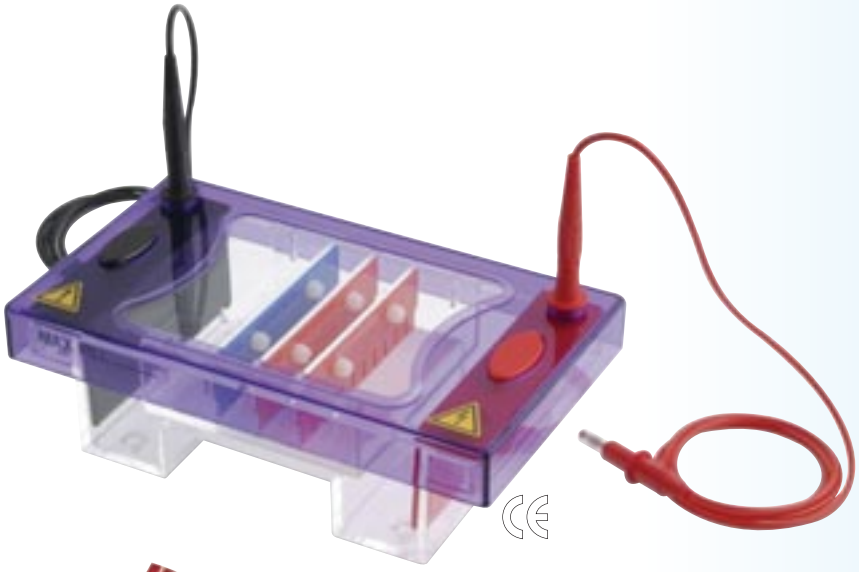
2.0mm

Code	Description	Sample Volume for a 5mm thick gel
MS7-1-2	Comb Prep 1, Marker 1, 2mm thick	405µl
MS7-2-2	Comb Prep 2, Marker 2, 2mm thick	180µl
MS7-4-2	Comb Prep 4, Marker 2, 2mm thick	96µl
MS7-8MC-2	Comb 8 sample MC, 2mm thick	23µl
MS7-8-2	Comb 8 sample, 2mm thick	50µl
MS7-10-2	Comb 10 sample, 2mm thick	36µl
MS7-12MC-2	Comb 12 sample MC, 2mm thick	27µl
MS7-16-2	Comb 16 sample, 2mm thick	20µl

MC = multichannel pipette compatible

combs

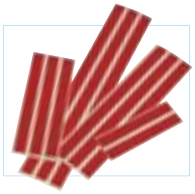
multiSUB midi



- Available with 10 x 7cm, 10 x 10cm or with both gel trays
- Run up to 100 samples
- Low buffer volumes
- Ideal for rapid electrophoresis

Typical Applications

Ideal for quick checks of samples from PCR and cloning



Loading guides allow easy well identification and sample loading

Scoops for safe transfer of gels

for Power Supplies and Product Selector see page 24/25

With gel tray options of 10 x 7cm and 10 x 10cm, the multiSUB Midi has been designed for routine horizontal gel electrophoresis. Extending only the width of this unit allows more samples to be resolved per gel than the multiSUB Mini without a significant increase in buffer or gel volumes.

A maximum of 100 samples per gel can be resolved making this unit ideal for those routinely checking medium numbers of samples over short to medium gel run lengths.

Ordering Information

MSMIDI7	**multiSUB Midi, 10 x 7cm UV Tray, 2 x 16 sample combs, loading guides and dams**				
MSMIDI10	**multiSUB Midi, 10 x 10cm UV Tray, 2 x 16 sample combs, loading guides and dams**				
MSMIDIDUO	**multiSUB Midi, 10 x 7cm & 10 x 10cm UV Tray, 2 x 16 sample combs, loading guides and dams**				
MS10-UV7	10 x 7cm UV Tray	MS10-LG	Adhesive Loading Guides	MS10-x -yLG	Combination Comb and
MS10-UV10	10 x 10cm UV Tray	MS10-WP	Viewing Platform		Loading Guide
MS10-PE	Positive Electrode	MSMIDICP	Cool-Pack and Platform		x = comb well number,
MS10-NE	Negative Electrode	MSMIDIBSB	Buffer Saver Blocks, pk/2		y = comb thickness
MS10-UVDAM	Casting Dams	saves 100ml of buffer		MS10-UVS	10cm UV Gel Scoop
MS7/10-FC	multiSUB Mini/Midi Flexicaster				

Technical Specifications

Gel dimensions, (W x L)	10 x 7cm 10 x 10cm
Unit dimensions (W x L x H)	22 x 12.5 x 9cm
Max. sample capacity	10 x 7cm tray – 50 samples 10 x 10cm tray – 100 samples
Buffer volume	300ml
Combs available : No. of samples Thicknesses	1, 2, 4, 8, 10MC, 12, 16, 20MC, 25 0.75, 1, 1.5, 2mm

0.75mm

Code	Description	Sample Volume for a 5mm thick gel
MS10-1-0.75	Comb Prep 1, Marker 1, 0.75mm thick	270µl
MS10-2-0.75	Comb Prep 2, Marker 2, 0.75mm thick	118µl
MS10-4-0.75	Comb Prep 4, Marker 2, 0.75mm thick	57µl
MS10-8-0.75	Comb 8 sample, 0.75mm thick	30µl
MS10-10MC-0.75	Comb 10 sample MC, 0.75mm thick	20µl
MS10-12-0.75	Comb 12 sample, 0.75mm thick	17µl
MS10-16-0.75	Comb 16 sample, 0.75mm thick	12µl
MS10-20MC-0.75	Comb 20 sample MC, 0.75mm thick	10µl
MS10-25-0.75	Comb 25 sample, 0.75mm thick	7µl

1.0mm

Code	Description	Sample Volume for a 5mm thick gel
MS10-1-1	Comb Prep 1, Marker 1, 1mm thick	360µl
MS10-2-1	Comb Prep 2, Marker 2, 1mm thick	158µl
MS10-4-1	Comb Prep 4, Marker 2, 1mm thick	77µl
MS10-8-1	Comb 8 sample, 1mm thick	41µl
MS10-10MC-1	Comb 10 sample MC, 1mm thick	27µl
MS10-12-1	Comb 12 sample, 1mm thick	23µl
MS10-16-1	Comb 16 sample, 1mm thick	16µl
MS10-20MC-1	Comb 20 sample MC, 1mm thick	14µl
MS10-25-1	Comb 25 sample, 1mm thick	10µl

1.5mm

Code	Description	Sample Volume for a 5mm thick gel
MS10-1-1.5	Comb Prep 1, Marker 1, 1.5mm thick	540µl
MS10-2-1.5	Comb Prep 2, Marker 2, 1.5mm thick	236µl
MS10-4-1.5	Comb Prep 4, Marker 2, 1.5mm thick	115µl
MS10-8-1.5	Comb 8 sample, 1.5mm thick	61µl
MS10-10MC-1.5	Comb 10 sample MC, 1.5mm thick	41µl
MS10-12-1.5	Comb 12 sample, 1.5mm thick	34µl
MS10-16-1.5	Comb 16 sample, 1.5mm thick	24µl
MS10-20MC-1.5	Comb 20 sample MC, 1.5mm thick	20µl
MS10-25-1.5	Comb 25 sample, 1.5mm thick	15µl

2.0mm

Code	Description	Sample Volume for a 5mm thick gel
MS10-1-2	Comb Prep 1, Marker 1, 2mm thick	720µl
MS10-2-2	Comb Prep 2, Marker 2, 2mm thick	315µl
MS10-4-2	Comb Prep 4, Marker 2, 2mm thick	153µl
MS10-8-2	Comb 8 sample, 2mm thick	81µl
MS10-10MC-2	Comb 10 sample MC, 2mm thick	54µl
MS10-12-2	Comb 12 sample, 2mm thick	45µl
MS10-16-2	Comb 16 sample, 2mm thick	32µl
MS10-20MC-2	Comb 20 sample MC, 2mm thick	27µl
MS10-25-2	Comb 25 sample, 2mm thick	20µl

MC = multichannel pipette compatible

Cleaver Scientific

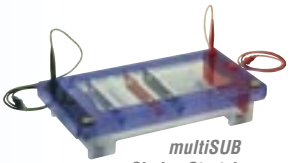
multiSUB choice

- Three tray options
- Run up to 210 samples
- Low buffer volumes
- Multichannel pipette compatible combs for speed loading

Typical Applications

Ideal for restriction fragment analysis, sample prep or checking of high numbers of samples

The multiSUB Choice offers a wide degree of versatility. Three tray options are available – 15 x 7cm, 15 x 10cm and 15 x 15cm – allowing the choice of one, two or all three gel length options at the time of purchase. Further purchases of additional accessories are no longer required. Maximising comb and tray options allow up to 210 samples to be resolved per gel. The 15cm total run length allows restriction fragment or other close MW sample bands to be easily separated and identified. Speed loading is accomplished using 10, 14, 16, 18, 28 and 30 sample multi-channel pipette compatible combs. Fabricated multiSUB CHOICE STRETCH units are available with optional 15 x 20cm and 15 x 25cm gel trays and four 28-sample combs for those researchers wanting to perform higher resolution separation of more samples over a longer distance.



multiSUB Choice Stretch

multiSUB Choice Trio includes all 3 tray sizes for optimum versatility and value

Technical Specifications

Gel dimensions, (W x L)	15 x 7cm 15 x 10cm 15 x 15cm 15 x 20cm 15 x 25cm
Unit dimensions (W x L x H)	26.5 x 17.5 x 9cm 41 x 17.5 x 9cm (Stretch models only)
Max. sample	15 x 7cm tray – 70 samples 15 x 10cm tray – 140 samples 15 x 15cm tray – 210 samples 15 x 15cm tray – 280 samples 15 x 15cm tray – 350 samples
Buffer volume	Choice 500ml Choice Stretch 1000ml
Combs available : No. of samples	1, 2, 4, 10, 10MC, 12, 14MC, 16, 18MC, 20, 28MC, 30MC, 35
Thicknesses	0.75, 1, 1.5, 2mm

Ordering Information

MSCHOICE7	**multiSUB Choice, 15 x 7cm UV Tray, 2 x 20 sample combs, loading guides and dams**				
MSCHOICE10	**multiSUB Choice, 15 x 10cm UV Tray, 2 x 20 sample combs, loading guides and dams**				
MSCHOICE15	**multiSUB Choice, 15 x 15cm UV Tray, 2 x 20 sample combs, loading guides and dams**				
MSCHOICETRIO	**multiSUB Choice Trio, 15 x 7,10 & 15cm UV Tray, 2 x 20 sample combs, loading guides and dams**				
MSCHOICEST20	**multiSUB Choice Stretch 20, 15 x 20cm UV tray, 4 x 28 sample combs, loading guides and dams**				
MSCHOICEST25	**multiSUB Choice Stretch 25, 15 x 25cm UV tray, 4 x 28 sample combs, loading guides and dams**				
MS15-UV7	15 x 7cm UV Tray	MS15-UVDAM	Casting Dams	MS15-UVS	15cm UV Gel Scoop
MS15-UV10	15 x 10cm UV Tray	MS15-PE	Positive Electrode	MSCHOICECP	Cool-Pack and Platform
MS15-UV15	15 x 15cm UV Tray	MS15-NE	Negative Electrode	MSCHOICEBSB	Buffer Saver Blocks pk/2, saves 190ml of buffer
MS15-UVST20	15 x 20 cm UV Tray	MS15-LG	Adhesive Loading Guides		
MS15-UVST25	15 x 25 cm UV Tray	MS15-WP	Viewing Platform	MS15-x -yLG	Combi Comb/Loading Guide
MS15/20-FC	multiSUB Choice/Maxi Flexi caster				

0.75mm

Code	Description	Sample Volume for a 5mm thick gel
MS15-1-0.75	Comb Prep 1, Marker 1, 0.75mm thick	371µl
MS15-2-0.75	Comb Prep 2, Marker 2, 0.75mm thick	169µl
MS15-4-0.75	Comb Prep 4, Marker 2, 0.75mm thick	91µl
MS15-10-0.75	Comb 10 sample, 0.75mm thick	34µl
MS15-12-0.75	Comb 12 sample, 0.75mm thick	30µl
MS15-20-0.75	Comb 20 sample, 0.75mm thick	16µl
MS15-35-0.75	Comb 35 sample, 0.75mm thick	7µl
MS15-10MC-0.75	Comb 10 sample MC, 0.75mm thick	22µl
MS15-14MC-0.75	Comb 14 sample MC, 0.75mm thick	22µl
MS15-16MC-0.75	Comb 16 sample MC, 0.75mm thick	20µl
MS15-18MC-0.75	Comb 18 sample MC, 0.75mm thick	8µl
MS15-28MC-0.75	Comb 28 sample MC, 0.75mm thick	8µl
MS15-30MC-0.75	Comb 30 sample MC, 0.75mm thick	9µl

1mm

Code	Description	Sample Volume for a 5mm thick gel
MS15-1-1	Comb Prep 1, Marker 1, 1mm thick	495µl
MS15-2-1	Comb Prep 2, Marker 2, 1mm thick	225µl
MS15-4-1	Comb Prep 4, Marker 2, 1mm thick	122µl
MS15-10-1	Comb 10 sample, 1mm thick	45µl
MS15-12-1	Comb 12 sample, 1mm thick	41µl
MS15-20-1	Comb 20 sample, 1mm thick	21µl
MS15-35-1	Comb 35 sample, 1mm thick	10µl
MS15-10MC-1	Comb 10 sample MC, 1mm thick	29µl
MS15-14MC-1	Comb 14 sample MC, 1mm thick	29µl
MS15-16MC-1	Comb 16 sample MC, 1mm thick	27µl
MS15-18MC-1	Comb 18 sample MC, 1mm thick	11µl
MS15-28MC-1	Comb 28 sample MC, 1mm thick	11µl
MS15-30MC-1	Comb 30 sample MC, 1mm thick	13µl

1.5mm

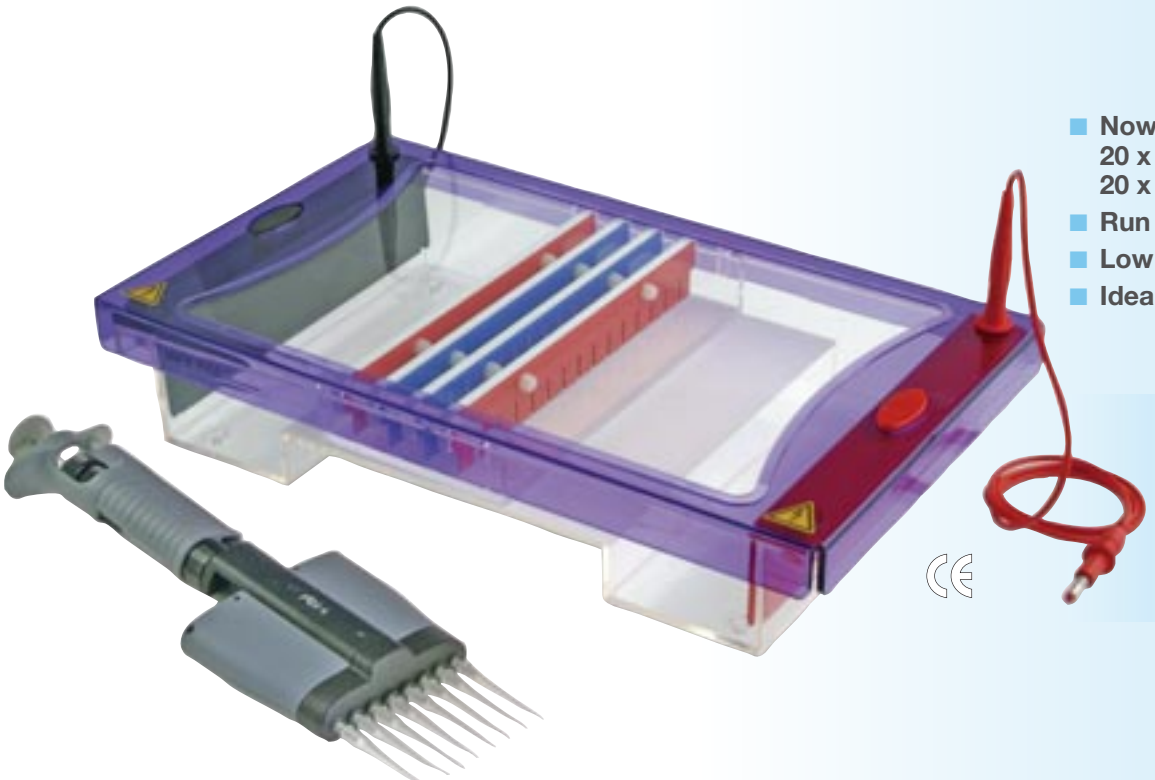
Code	Description	Sample Volume for a 5mm thick gel
MS15-1-1.5	Comb Prep 1, Marker 1, 1.5mm thick	743µl
MS15-2-1.5	Comb Prep 2, Marker 2, 1.5mm thick	338µl
MS15-4-1.5	Comb Prep 4, Marker 2, 1.5mm thick	182µl
MS15-10-1.5	Comb 10 sample, 1.5mm thick	68µl
MS15-12-1.5	Comb 12 sample, 1.5mm thick	61µl
MS15-20-1.5	Comb 20 sample, 1.5mm thick	32µl
MS15-35-1.5	Comb 35 sample, 1.5mm thick	15µl
MS15-10MC-1.5	Comb 10 sample MC, 1.5mm thick	44µl
MS15-14MC-1.5	Comb 14 sample MC, 1.5mm thick	44µl
MS15-16MC-1.5	Comb 16 sample MC, 1.5mm thick	41µl
MS15-18MC-1.5	Comb 18 sample MC, 1.5mm thick	17µl
MS15-28MC-1.5	Comb 28 sample MC, 1.5mm thick	17µl
MS15-30MC-1.5	Comb 30 sample MC, 1.5mm thick	19µl

2mm

Code	Description	Sample Volume for a 5mm thick gel
MS15-1-2	Comb Prep 1, Marker 1, 2mm thick	990µl
MS15-2-2	Comb Prep 2, Marker 2, 2mm thick	450µl
MS15-4-2	Comb Prep 4, Marker 2, 2mm thick	243µl
MS15-10-2	Comb 10 sample, 2mm thick	90µl
MS15-12-2	Comb 12 sample, 2mm thick	81µl
MS15-20-2	Comb 20 sample, 2mm thick	43µl
MS15-35-2	Comb 35 sample, 2mm thick	20µl
MS15-10MC-2	Comb 10 sample MC, 2mm thick	59µl
MS15-14MC-2	Comb 14 sample MC, 2mm thick	59µl
MS15-16MC-2	Comb 16 sample MC, 2mm thick	54µl
MS15-18MC-2	Comb 18 sample MC, 2mm thick	23µl
MS15-28MC-2	Comb 28 sample MC, 2mm thick	23µl
MS15-30MC-2	Comb 30 sample MC, 2mm thick	25µl

MC = multichannel pipette compatible

multiSUB maxi



- Now available with 20 x 25cm, 20 x 20cm, 20 x 15cm or 20 x 10cm gel trays
- Run up to 550 samples
- Low buffer volumes
- Ideal for extended separations

Typical Applications

Primarily designed for separating high numbers of samples from PCR or cloning

The multiSUB Maxi is primarily designed for resolution of high numbers of samples such as from Cloning or PCR. The multiSUB Maxi allows ultra high-resolution separations over extended runs. Tray sizes correspond to standard blotter sizes. It also allows easy sample transfer onto a membrane for further analysis.

Four gel tray sizes are available – 20 x 10cm, 20 x 15cm, 20 x 20cm and 20 x 25cm. Multichannel pipette compatible combs up to 40 sample facilitate speed loading of up to 440 samples per gel. 50 sample combs allow maximum sample capacity of 550 samples per gel.

Casting dams allow gels to be rapidly cast externally while the MultiSub™ unit is in use for gel running

Ordering Information

MSMAXI10	**multiSUB Maxi, 20 x 10cm UV Tray, 2 x 20 sample, 1mm thick combs, casting dams, loading guides**
MSMAXI15	**multiSUB Maxi, 20 x 15cm UV Tray, 2 x 20 sample, 1mm thick combs, casting dams, loading guides**
MSMAXI20	**multiSUB Maxi, 20 x 20cm UV Tray, 2 x 20 sample, 1mm thick combs, casting dams, loading guides**
MSMAXIDUO	**multiSUB Maxi, 20 x 10 & 20 x 20cm UV Tray, 2 x 20 sample, 1mm thick combs, casting dams, loading guides**
MSMAXI25	**multiSUB Maxi, 20 x 25cm UV Tray, 2 x 20 sample, 1mm thick combs, casting dams, loading guides**

MS20-UV10	20 x 10cm UV Tray	MS20-LG	Adhesive Loading Guides	MSMAXICP	Cool-Pack and Platform
MS20-UV15	20 x 15cm UV Tray	MS20-WP	Viewing Platform	MSMAXIBSB	Buffer Saver Blocks pk/2,
MS20-UV20	20 x 20cm UV Tray	MS20-PE	Positive Electrode		saves 450ml of buffer
MS20-UV25	20 x 25cm UV Tray	MS20-NE	Negative Electrode	MS20-x -yLG	Combi Comb and
MS20-UVDAM	Casting Dams	MS20-UVS	20cm UV Gel Scoop		Loading Guide;
MS15/20-FC	multiSUB Choice/Maxi Flexi caster			x = comb well no., y = comb thickness	

Technical Specifications

Gel dimensions, (W x L)	20 x 10cm 20 x 20cm
Unit dimensions (W x L x H)	39.5 x 23 x 9cm
Max. sample capacity	20 x 10cm tray – 200 samples 20 x 20cm tray – 450 samples 20 x 25cm tray – 550 samples
Buffer volume	1200ml
Combs available : No. of samples	1, 2, 4, 10, 16, 20MC, 25, 30, 36, 40MC, 50
Thicknesses	0.75, 1, 1.5, 2mm

0.75mm

Code	Description	Sample Volume for a 5mm thick gel
MS20-1-0.75	Comb Prep 1, Marker 1, 0.75mm thick	506µl
MS20-2-0.75	Comb Prep 2, Marker 2, 0.75mm thick	236µl
MS20-4-0.75	Comb Prep 4, Marker 2, 0.75mm thick	115µl
MS20-10-0.75	Comb 10 sample, 0.75mm thick	54µl
MS20-16-0.75	Comb 16 sample, 0.75mm thick	30µl
MS20-20MC-0.75	Comb 20 sample MC, 0.75mm thick	20µl
MS20-25-0.75	Comb 25 sample, 0.75mm thick	16µl
MS20-30-0.75	Comb 30 sample, 0.75mm thick	13µl
MS20-36-0.75	Comb 36 sample, 0.75mm thick	11µl
MS20-40MC-0.75	Comb 40 sample MC, 0.75mm thick	8µl
MS20-50-0.75	Comb 50 sample, 0.75mm thick	8µl

1.0mm

Code	Description	Sample Volume for a 5mm thick gel
MS20-1-1	Comb Prep 1, Marker 1, 1mm thick	675µl
MS20-2-1	Comb Prep 2, Marker 2, 1mm thick	315µl
MS20-4-1	Comb Prep 4, Marker 2, 1mm thick	153µl
MS20-10-1	Comb 10 sample, 1mm thick	72µl
MS20-16-1	Comb 16 sample, 1mm thick	41µl
MS20-20MC-1	Comb 20 sample MC, 1mm thick	27µl
MS20-25-1	Comb 25 sample, 1mm thick	21µl
MS20-30-1	Comb 30 sample, 1mm thick	17µl
MS20-36-1	Comb 36 sample, 1mm thick	14µl
MS20-40MC-1	Comb 40 sample MC, 1mm thick	11µl
MS20-50-1	Comb 50 sample, 1mm thick	10µl

1.5mm

Code	Description	Sample Volume for a 5mm thick gel
MS20-1-1.5	Comb Prep 1, Marker 1, 1.5mm thick	1013µl
MS20-2-1.5	Comb Prep 2, Marker 2, 1.5mm thick	473µl
MS20-4-1.5	Comb Prep 4, Marker 2, 1.5mm thick	230µl
MS20-10-1.5	Comb 10 sample, 1.5mm thick	108µl
MS20-16-1.5	Comb 16 sample, 1.5mm thick	61µl
MS20-20MC-1.5	Comb 20 sample MC, 1.5mm thick	41µl
MS20-25-1.5	Comb 25 sample, 1.5mm thick	32µl
MS20-30-1.5	Comb 30 sample, 1.5mm thick	26µl
MS20-36-1.5	Comb 36 sample, 1.5mm thick	22µl
MS20-40MC-1.5	Comb 40 sample MC, 1.5mm thick	17µl
MS20-50-1.5	Comb 50 sample, 1.5mm thick	16µl

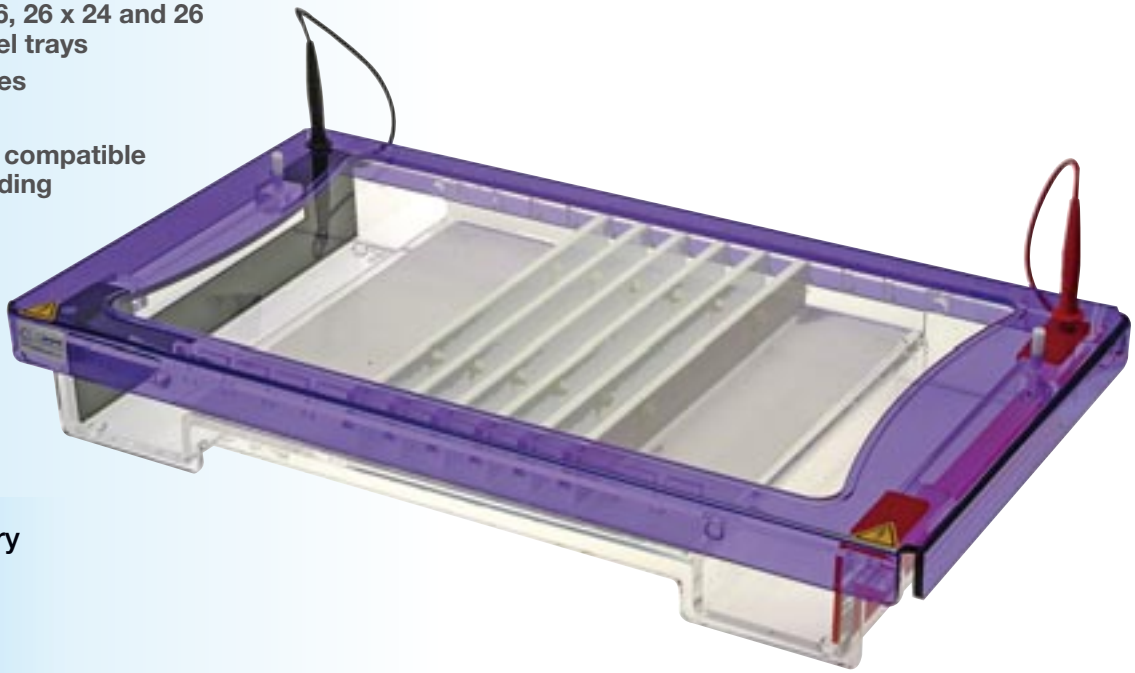
2.0mm

Code	Description	Sample Volume for a 5mm thick gel
MS20-1-2	Comb Prep 1, Marker 1, 2mm thick	1350µl
MS20-2-2	Comb Prep 2, Marker 2, 2mm thick	630µl
MS20-4-2	Comb Prep 4, Marker 2, 2mm thick	306µl
MS20-10-2	Comb 10 sample, 2mm thick	144µl
MS20-16-2	Comb 16 sample, 2mm thick	81µl
MS20-20MC-2	Comb 20 sample MC, 2mm thick	54µl
MS20-25-2	Comb 25 sample, 2mm thick	42µl
MS20-30-2	Comb 30 sample, 2mm thick	34µl
MS20-36-2	Comb 36 sample, 2mm thick	29µl
MS20-40MC-2	Comb 40 sample MC, 2mm thick	23µl
MS20-50-2	Comb 50 sample, 2mm thick	21µl

MC = multichannel pipette compatible

multiSUB screen

- **Available with 26 x 16, 26 x 24 and 26 x 32cm or all three gel trays**
- **Run up to 672 samples**
- **Low buffer volumes**
- **Multichannel pipette compatible combs for speed loading**



Typical Applications

Ideal for checking very large numbers of samples or extended high resolution separations

Designed for rapid screening of very large numbers of Clonal or PCR samples, the multiSUB Screen horizontal gel unit has a 672 maximum sample capacity per gel. This allows loading and analysis of exactly seven 96 well format micro titre plates.

The large gel run length of 32cm also allows resolution of samples over a long distance for separation of complex sample bands such as in restriction fragment analysis.

The unit is available with a full length tray or with other tray length options of 16 or 24cm so that the user's exact requirements can be matched. In addition to options for single length gel trays, multiSUB Screen is available with all three gel tray lengths to provide the maximum in flexibility, versatility and value.

Buffer recirculation ports are included as standard to allow enhanced resolution over extended runs while loading guides enhance well visibility for easy sample loading.

for Power Supplies and Product Selector see pages 38-39

all multiSUB Screen combs are multichannel pipette compatible

Technical Specifications

Gel dimensions (W x L)	26 x 32cm 26 x 24cm 26 x 16cm
Unit dimensions	50 x 28 x 9cm (L x W x H)
Max sample capacity	26 x 32cm tray – 672 samples 26 x 24cm tray – 504 samples 26 x 16cm tray – 336 samples
Buffer volume	1400ml
Combs available No. of samples Thicknesses	28MC, 56MC 0.75, 1, 1.5, 2mm

Ordering Information

MSSCREEN32	**multiSUB Screen, 26 x 32cm UV Tray, 6 x 28 sample combs, loading guides**				
MSSCREEN24	**multiSUB Screen, 26 x 24cm UV Tray, 6 x 28 sample combs, loading guides**				
MSSCREEN16	**multiSUB Screen, 26 x 16cm UV Tray, 6 x 28 sample combs, loading guides**				
MSSCREENTRIO	**multiSUB Screen, 26 x 16cm, 26 x 24cm, 26 x 32cm UV Trays, 6 x 28 sample combs, loading guides**				
MS26-UV32	26 x 32cm UV Tray	MS26-PE	Positive Electrode	MS26-x -yLG	CombiComb and Loading
MS26-UV24	26 x 24cm UV Tray	MS26-NE	Negative Electrode		Guide; x = comb well no.,
MS26-UV16	26 x 16cm UV Tray	MS26-WP	Viewing Platform	y = comb thickness	
MS26-LG	Adhesive Loading Guides	MSSCRNBSB	Buffer Saver Blocks, pk/2	MSSCRNCP	Cool-Pack and
MS26-UVS	26cm UV Gel Scoop		saves 625ml of buffer		Platform
MS26-FC	Flexicaster for gels up to 32cm. Casts 7, 10, 15, 16, 20, 24 and 32cm long gels				

Code	Description a 5mm thick gel	Sample Volume for
0.75mm		
MS26-28MC-0.75	Comb 28 sample MC, 0.75mm thick	25µl
MS26-56MC-0.75	Comb 56 sample MC, 0.75mm thick	10µl
1.0mm		
MS26-28MC-1	Comb 28 sample MC, 1mm thick	34µl
MS26-56MC-1	Comb 56 sample MC, 1mm thick	14µl

Code	Description a 5mm thick gel	Sample Volume for
1.5mm		
MS26-28MC-1.5	Comb 28 sample MC, 1.5mm thick	51µl
MS26-56MC-1.5	Comb 56 sample MC, 1.5mm thick	20µl
2.0mm		
MS26-28MC-2	Comb 28 sample MC, 2mm thick	68µl
MS26-56MC-2	Comb 56 sample MC, 2mm thick	27µl

MC = multichannel pipette compatible

miniRapide

- A convenient self contained solution for routine agarose gel electrophoresis
- Ultra compact
- Low buffer volumes
- Multichannel pipette compatible combs for speed loading

Typical Applications

For routine, rapid checking of samples

The miniRapide is a completely self contained system designed for quick checks of samples. Gel casting, running and analysis are all performed in the same ultra compact unit. Buffer and gel volumes have been kept to a minimum and the parallel electrode arrangement allows ultra efficient current transfer, enabling resolution to be completed within 30 minutes. The UV transparent base allows direct viewing on a UV Transilluminator with no need for time consuming transfer and potential gel damage. Dual comb slots allow the loading of up to 40 samples per gel while multichannel pipette compatible combs further enhance the speed and convenience.

Technical Specifications

Gel dimensions, (W x L)	10 x 8cm
Unit dimensions (W x L x H)	15 x 15 x 4cm
Max. sample capacity	40 samples
Buffer volume	50ml
Combs available : No. of samples Thicknesses	1, 4, 8, 12, 16, 20 1, 1.5mm

Ordering Information

FMMS10	**miniRapide, 10 x 8cm, 2 x 8 sample combs 1.5mm and casting dams**
FMMS-DAM	miniRapide Casting dams, pk/2
RPW0.2	Replacement Platinum Wire 0.2mm – 50cm

1.0mm combs

Code	Description	Sample Volume for a 5mm thick gel
FMMS-1-1	Comb 1 sample , 1 dye , 1mm thick	330µl
FMMS-4-1	Comb 4 sample, 1mm thick	90µl
FMMS-8-1	Comb 8 sample, 1mm thick	40µl
FMMS-12-1	Comb 12 sample, 1mm thick	25µl
FMMS-16-1	Comb 16 sample, 1mm thick	15µl
FMMS-20MC-1	Comb 20 sample MC, 1mm thick	10µl

1.5mm combs

Code	Description	Sample Volume for a 5mm thick gel
FMMS-1-1.5	Comb 1 sample , 1 dye , 1.5mm thick	495µl
FMMS-4-1.5	Comb 4 sample, 1.5mm thick	135µl
FMMS-8-1.5	Comb 8 sample, 1.5mm thick	60µl
FMMS-12-1.5	Comb 12 sample, 1.5mm thick	38µl
FMMS-16-1.5	Comb 16 sample, 1.5mm thick	23µl
FMMS-20MC-1.5	Comb 20 sample MC, 1.5mm thick	15µl

MC = multichannel pipette compatible

batteryGel

The MSBGEL battery mini-gel is designed specifically with safety and cost in mind: as no power supply is necessary. Results are obtainable within 1.5 hours if used with our completely safe educational electrophoresis kit, which is free of ethidium bromide. It includes non-toxic electrophoretic dyes, spotting pipettes, agarose, buffer and classroom protocols.

- Low voltage makes the MSBGEL ideal for use in schools and colleges where safety is paramount
- Integrated safety lid makes the gel inaccessible during use
- UV-transparent acrylic for direct visualisation of the gel within the tank
- Small size minimises the buffer and gel consumption
- Cost-effective – no need for expensive power supplies, or transilluminators if supplied with optional kit

Technical Specifications

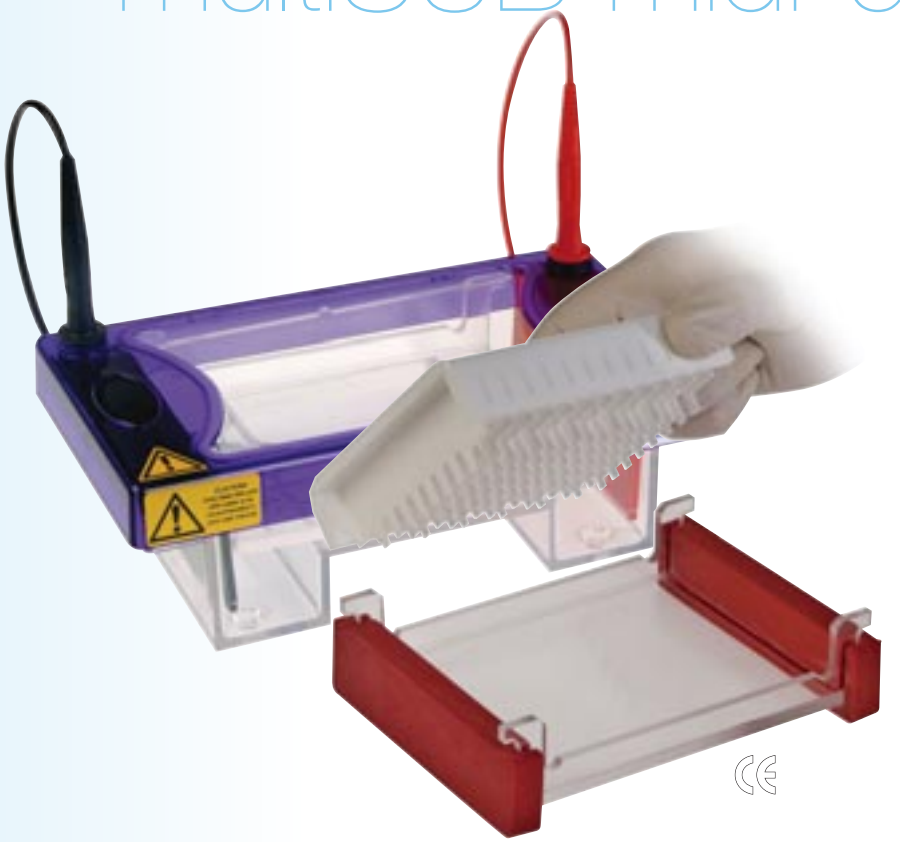
Unit Dimensions (W x L x H)	11 x 17 x 3.5cm
Gel Dimensions (W x L)	6 x 7.5cm
Minimum Buffer Volume	50ml
Maximum Sample Capacity	32
Combs: Comb Thickness Number of Samples	1mm 4, 8, 12 and 16

Ordering Information

MSBGEL	**Battery operated horizontal gel 6 x 7.5cm, 2 x 8 sample combs, casting gates**		
MSBGEL-KIT	**Educational electrophoresis kit with 1x100ml TBE buffer, 1x 5g agarose, 4x electrophoretic dyes, spotting pipette and classroom protocols**		
MSBGEL-CG	Casting gates Pk/2 for MSBGEL	MSBG-1-8	Comb 8 sample, 1mm thick
MSBGEL-BAT	PP3 batteries for MSBGEL Pk/2	MSBG-1-12	Comb 12 sample, 1mm thick
MSBG-1-4	Comb 4 sample, 1mm thick	MSBG-1-16	Comb 16 sample, 1mm thick

multiSUB midi-96

- **Designed for loading of DNA samples from multi-well plates**
- **Ideal for high throughput electrophoresis**
- **Average run-time is just 15 to 30 minutes**
- **Direct microplate format for easy lane identification**
- **Multichannel pipette compatible combs for speed loading**



Typical Applications

Ideal for analysis of up to 96 PCR-fragment length polymorphisms loaded from 96-well microplates or thermal cycler blocks

The multiSUB Midi 96 Gel System is ideal for high throughput electrophoresis of PCR products or samples containing a small number of DNA bands.

Its 10x12cm (WxL) gel dimensions and 96-well comb block format correspond to the standard microplate configuration, with additional lanes for markers. Two different types of comb are available: one which has 8 wells and one additional lane for DNA markers and one which has 8 wells and 2 additional lanes for markers. The offset layout of the wells allows a maximum run length of 1.8cm per well, resulting in improved separation.

multiSUB Midi 96 can accommodate samples from a 96-well plate – samples can be loaded directly using 8-channel pipettes. As with all multiSUB units, leak-proof casting is simplified using the supplied casting dams while their ultra-compact size minimises buffer usage and bench space requirements.

MSMIDI96 Stretch Systems are also available for those users requiring an extended run length per well of up to 3.6cm.

After pouring gel, the 96 well comb is inserted and the gel is allowed to set

Samples are loaded using a multichannel pipette

After removing dams, running tray is transferred

to the gel chamber and the lid positioned ready for electrophoresis

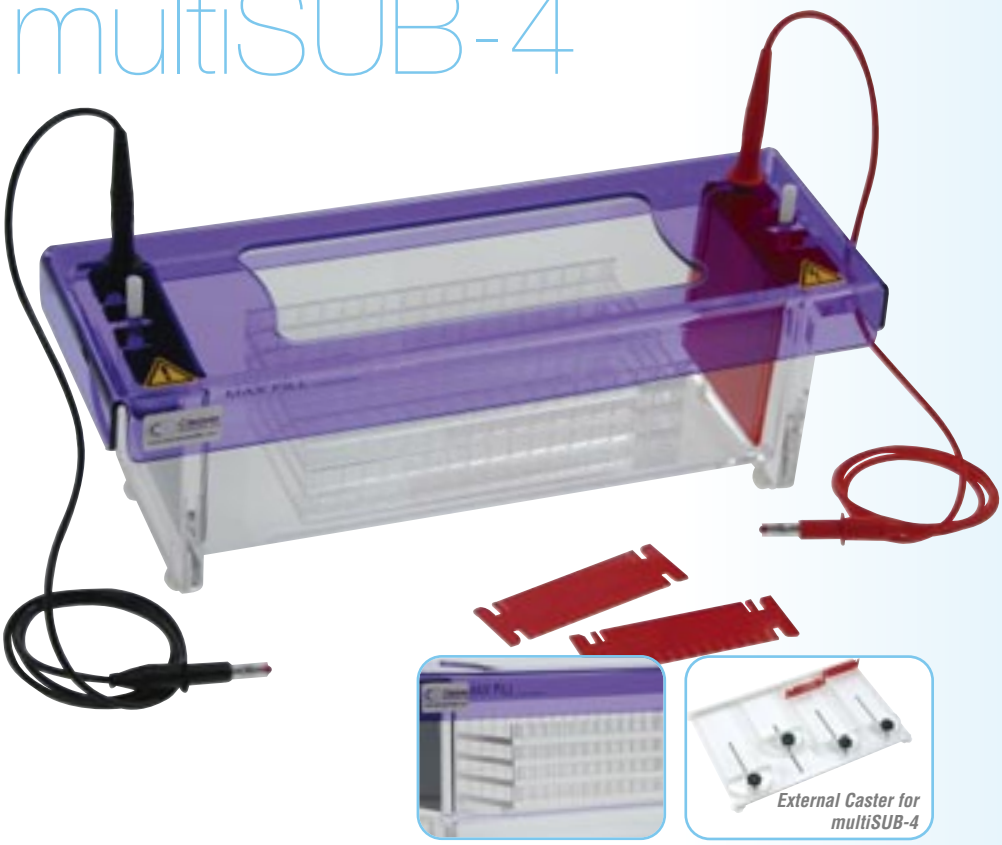
Technical Specifications

Gel Dimensions, (W x L)	msmidi96:	10 x 12cm
	msmidi96st:	10 x 24cm
Unit Dimensions: (W x D x H)	msmidi96:	22 x 12.5 x 9cm
	msmidi96st:	46.5 x 12.5 x 8cm
Buffer Volume: (W x L)	msmidi96:	300ml
	msmidi96st:	700ml
Max. sample capacity	96 samples plus 1 or 2 marker lanes	
Combs available:		
No. of samples	8 + 1x Marker, 8 + 2x Markers	
Thicknesses	1, 1.5mm	

Ordering Information

MSMIDI96	**Multi Sub Midi96, UV tray, Comb block with 12 x 8 sample, 1mm thick combs, casting dams**
MSMIDI961.5	**Multi Sub Midi96, UV tray, Comb block with 12 x 8 sample, 1.5mm thick combs, casting dams Combs have one marker lane**
MSMIDI96/2M	**Multi Sub Midi96, UV tray, Comb block with 12 x 8 sample, 1mm thick combs, casting dams Combs have two marker lanes**
MSMIDI96/1.5/2M	**Multi Sub Midi96, UV tray, Comb block with 12 x 8 sample, 1.5mm thick combs, casting dams Combs have two marker lanes**
MSMIDI96ST	**Multi Sub Midi96 STRETCH, UV tray, Comb block with 12 x 8 sample, 1mm thick combs, casting dams**
MSMIDI96ST1.5	**Multi Sub Midi96 STRETCH, UV tray , Comb block with 12 x 8 sample, 1.5mm thick combs, casting dams. Combs have one marker lane**
MSMIDI96ST/2M	**Multi Sub Midi96 STRETCH, UV tray , Comb block with 12 x 8 sample, 1mm thick combs, casting dams. Combs have two marker lanes**
MSMIDI96ST/1.5/2M	**Multi Sub Midi96 STRETCH, UV tray , Comb block with 12 x 8 sample, 1.5mm thick combs, casting dams. Combs have two marker lanes**
MSMIDI96-8-1-CB	MSMIDI 96 Comb 8 sample MC + 1 Marker, 1mm thick COMB BLOCK
MSMIDI96-8-1.5-CB	MSMIDI 96 Comb 8 sample MC + 1 Marker, 1.5mm thick COMB BLOCK
MSMIDI96-8-1/2M-CB	MSMIDI 96 Comb 8 sample MC + 2 Marker, 1mm thick COMB BLOCK
MSMIDI96-8-1.5/2M-CB	MSMIDI 96 Comb 8 sample MC + 2 Marker, 1.5mm thick COMB BLOCK
MSMIDI96ST-8-1-CB	MSMIDI 96 STRETCH Comb 8 sample MC + 1 Marker, 1mm thick COMB BLOCK
MSMIDI96ST-8-1.5-CB	MSMIDI 96 STRETCH Comb 8 sample MC + 1 Marker, 1.5mm thick COMB BLOCK
MSMIDI96ST-8-1/2M-CB	MSMIDI 96 STRETCH Comb 8 sample MC + 2 Marker, 1mm thick COMB BLOCK
MSMIDI96ST-8-1.5/2M-CB	MSMIDI 96 STRETCH Comb 8 sample MC + 2 Marker, 1.5mm thick COMB BLOCK
MSMIDI96-8-1	MSMIDI 96 Comb 8 sample MC, 1mm thick. one marker lane.
MSMIDI96-8-1.5	MSMIDI 96 Comb 8 sample MC, 1.5mm thick. one marker lane.
MSMIDI96-8-1/2M	MSMIDI 96 Comb 8 sample MC, 1mm thick. two marker lanes.
MSMIDI96-8-1.5/2M	MSMIDI 96 Comb 8 sample MC, 1.5mm thick. two marker lanes.
MS10-UV96	Multi Sub Midi, 96 Well Tray
MS10-UV96ST	Multi Sub Midi STRETCH, 96 Well Tray

multiSUB-4



External Caster for multiSUB-4

- **Separates a maximum 1200 samples in as little as 15 minutes in 4 stacked horizontal gel trays**
- **Multichannel-compatible combs and gel plate configurations compatible with microplates and thermal cycler blocks ensure rapid loading of DNA minipreps and PCR products by 8-channel pipette**
- **Double-sided 1.5-mm-thick combs allow more sample volume to be loaded into each well**
- **Three gel tray options available in 8x6, 8x12 and 8x18cm (WxL) sizes for maximum flexibility**
- **Small footprint area reduces uptake of bench space within the laboratory**

The multiSUB-4 is a compact system capable of running a maximum 1200 samples simultaneously by stacking up to 4 horizontal gels. This achieves high sample throughput while maintaining the time- and space-saving advantages of a small, compact unit.

Each multiSUB-4 is supplied with 4 gel trays and 8 combs as standard, while additional trays and combs may be purchased as required. Two double-sided comb and three tray length formats are also available.

An optional flexicaster, either supplied separately or as a package with the multiSUB-4, is also available that allows up to four 8x6, 8x12 and 8x18cm multisUB-4 gel trays to be cast simultaneously outside the tank.

Typical Applications

Ideal for rapid checking of large numbers of samples from PCR and cloning

Ordering Information

CSL-MULTISUB4	**Multisub4, Multi-Level Gel Chamber, Includes 4x 18cm UV Trays, 8x 18/8 Sample 1.5mm Combs (Tape UV Trays To Seal)**		
CSL-MULTISUB4EXCAS	**Multisub4, As Above But With External Caster For 4 Gels**		
MSUB4UV6	multiSUB4 tray 8 x 6cm	MSUB4-18/8-1	18/8 Sample 1mm Combs for multiSUB4
MSUB4UV12	multiSUB4 tray 8 x 12cm	MSUB4-12/1-1.5	12/1 SAMPLE 1.5mm Combs for multiSUB4
MSUB4UV18	multiSUB4 tray 8 x 18cm	MSUB4-18/8-1.5	18/8 SAMPLE 1.5mm Combs for multiSUB4
MSUB4EXCASTER	External Caster For Msub4 (4 Trays)	CSL-CAB	Electrophoresis cable (Black & Red)
MSUB4-12/1-1	12/1 Sample 1mm Combs for multiSUB4		

Technical Specifications

Gel dimensions, (W x L)	8 x 6cm, 8 x 12cm, 8 x 18cm
Unit dimensions	35 x 11 x 16cm (W x D x H)
Max. sample capacity	per 18cm tray with 1cm run length: 306 with 2cm run length: 144 with 3cm run length: 72
Buffer volume	200, 400, 600 or 800ml (for 1, 2, 3 or 4 gel trays resp.)
Combs available : No. of samples Thicknesses	1, 8, 12, 18 DuoCombs 1, 1.5mm

casting systems

Two horizontal flexicasters are now available for use with the multiSUB Mini and Midi and multiSUB Midi and Maxi gel trays. Each flexicaster is entirely versatile and includes an adjustable barrier that may be locked into position to ensure efficient leak free casting. No further casting accessories are needed other than the gel tray, while adjustable levelling feet and a spirit bubble facilitate even gel-pouring.

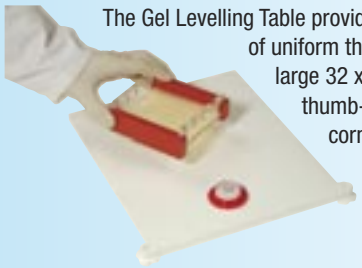
- **Adjustable barrier with ultra-soft silicone gasket ensures leak-proof casting**
- **Mini flexicaster accommodates 7x7, 7x10, 10x7 and 10x10cm gel trays**
- **Maxi flexicaster accommodates 15x7, 15x10 and 15x15 and 20x10, 20x15, 20x20 and 20x25cm gel trays**

Ordering Information

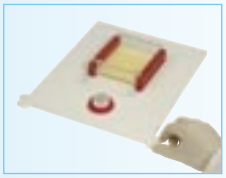
MS7/10-FC	Multi Sub Mini/Midi Flexi caster	MS15/20-FC	Multi Sub Choice/Maxi Flexi caster

accessories

gel levelling table

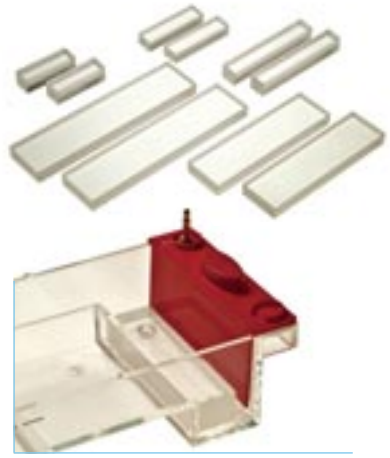


The Gel Levelling Table provides a useful way of pouring gels of uniform thickness. The table features a large 32 x 26cm platform with large thumb-wheel levelling feet at each corner. A levelling bubble is supplied.



buffer saver blocks

Buffer saver blocks physically reduce the volume in positive and negative compartments of a gel chamber and so reduces buffer requirements, saving cost. Blocks are available for all multiSUB Horizontal Gel Units.



combi-comb/loading guides

- **Colour coded for thickness**
- **Comb and guide in one piece for convenience**
- **Adjustable height**

These guides combine the convenience of a regular comb with the appropriate guide (same teeth number and width) for loading samples, simply flip over.

gel rulers

- **Sharp, clear, easily visible markings**
- **For use with ethidium bromide gels**
- **Ideal for gel presentation**

high efficiency horizontal gel cooling

- **Effective cooling**
- **Cools without external chilling systems**
- **Improves gel resolution and reduces run times**

Comprising a removable Gel Platform and CoolPack this unique system will cool the buffer chamber of multiSUB horizontal gel units without any external chilling. Simply place the platform over the running tray and place a pre-chilled CoolPack on top. This allows the CoolPack to sit above the gel in buffer directly removing any heat generated.

Ordering Information

High Efficiency Horizontal Gel Cooling Systems	
MSMINICP	Cool-Pack and Platform for MSMINI
MSMIDICP	Cool-Pack and Platform for MSMIDI
MSCHOICECP	Cool-Pack and Platform for MSCHOICE
MSMAXICP	Cool-Pack and Platform for MSMAXI
MSSCREENCP	Cool-Pack and Platform for MSSCREEN

Horizontal Systems Combi Comb / Loading Guides	
(x = comb well number, y = comb thickness)	
MS7-x -yLG	Combination Comb and Loading Guide for MSMINI
MS10-x -yLG	Combination Comb and Loading Guide for MSMIDI
MS15-x -yLG	Combination Comb and Loading Guide for MSCHOICE
MS20-x -yLG	Combination Comb and Loading Guide for MSMAXI
MS26-x -yLG	Combination Comb and Loading Guide for MSSCREEN

Horizontal Buffer Saver Blocks	
MSMINIBSB	Buffer Saver Blocks for MSMINI, pk/2 saves 100ml of buffer
MSMIDIBSB	Buffer Saver Blocks for MSMIDI, pk/2 saves 100ml of buffer
MSCHOICEBSB	Buffer Saver Blocks for MSCHOICE, pk/2 saves 190ml of buffer
MSMAXIBSB	Buffer Saver Blocks for MSMAXI, pk/2 saves 450ml of buffer
MSSCREENBSB	Buffer Saver Blocks for MSSCREEN, pk/2 saves 625ml of buffer

Gel Levelling Table	
CSL-GLT	Gel Levelling Table

UV Fluorescent Ruler	
CSL-RULER	UV Fluorescent Ruler

buffers, agarose, markers

buffers for nucleic acid electrophoresis

Available in powder sachets to maintain shelf life, Cleaver Scientific TBE is available for nucleic acid gel electrophoresis techniques. Each buffer sachet, which is available in packs of 10, may be reconstituted to make 1 litre of working solution. Buffers may also be supplied in 1 litre and 5 litre volumes as ready-made 50x TAE and 10x TBE solutions.

high grade agarose for nucleic acid electrophoresis

AG agaroses are suitable for routine analysis of nucleic acids. They combine tensile strength with low electro-endosmotic effects to achieve high resolving power for a wide size range of nucleic acid fragments.

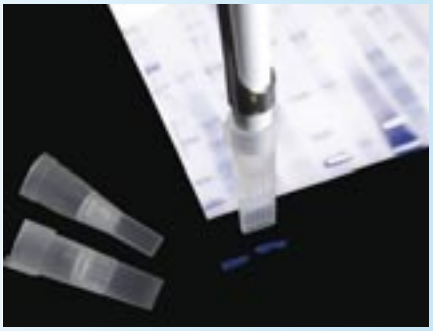
GelX disposable gel excision tips

Widely acclaimed as a great new tool for gene cloning and now available from Cleaver Scientific, GelX disposable gel excision tips offer a unique and convenient way to excise bands from gels. GelX tips allow completely safe and contamination free removal of the gel band of interest without the need to handle potentially dangerous scalpels. The gel band is neatly extracted and contained in the tip, when it is then dispensed into a tube for further analysis. Once used, the tip is ejected for disposal.

- **Eliminates scalpel damage to transilluminator or gel tray**
- **Designed for removing bands from agarose and protein gels**
- **One handed operation**
- **Push button gel and tip release mechanism**
- **Fits standard 1000 µl pipettors**
- **Autoclavable**
- **DNase and RNase free**
- **Sterile versions are also available**

RNase-Free Water

DEPC-treated to eliminate enzyme activity and then autoclaved, this sterile highly purified water product is perfect for use in PCR and Northern blotting techniques. Available either in a single 250ml bottle or as one hundred 5ml aliquots to prevent cross-contamination.



ready-to-use DNA markers

Pre-made and containing bromophenol blue for immediate use, Cleaver Scientific markers are specially formulated to run accurately and produce sharp, well defined DNA ladders. Available in five molecular weight ranges, each marker may be stored at room temperature. DNA loading dye, containing 10x bromophenol blue, is also available in 1ml volumes for easy sample loading and migration.

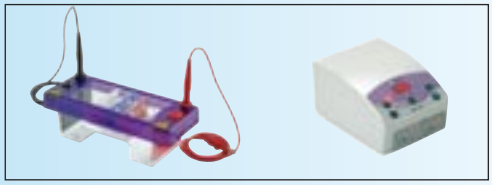
Ordering Information

High Grade Agarose for Nucleic Acid Electrophoresis			
CSL-AG100	Agarose 100g (1 x 100g Bottles)	CSL-AG1000	Agarose 1000g (2 x 500g Bottles)
CSL-AG500	Agarose 500g (1 x 500g Bottles)	CSL-AG2000	Agarose 1000g (4 x 500g Bottles)
Buffers for Nucleic Acid Electrophoresis			
CSL-TBEP	Powdered Tris-Borate-EDTA Running buffer - 10 Pouches (10 litres/pk)	TBE10X1L	Cleaver Buffer Tris-Borate-EDTA Running Buffer 10X 1 litre
TAE50X1L	Cleaver Buffer Tris-Acetate-EDTA Running Buffer 50X 1L	TBE10X5L	Cleaver Buffer Tris-Borate-EDTA Running Buffer 10X 5 litres
TAE50X5L	Cleaver Buffer Tris-Acetate-EDTA Running Buffer 50X 5L		
RNase-Free Water			
RFW250	RNase-Free Water 250 ml	RFW50X5	RNase-Free Water 50x 5ml
Ready-to-Use DNA Markers			
CSL-MDNA-100bp	100 bp DNA Ladder (can be stored at Room temperature)	CSL-MDNA-HR	High Range DNA Ladder, 1000bp-10,000bp (can be stored at room temperature)
CSL-MDNA-1kb	1 kb DNA Ladder (can be stored at room temperature)	CSL-MDNA-LR	Low Range DNA Ladder, 125bp-3,000bp (can be stored at room temperature)
CSL-MDNA-BR	Broad Range DNA Ladder, 250bp-8,000bp (can be stored at room temperature)	CSL-LOADDYE	10x Bromophenol Blue Loading Dye, 1ml
GelX disposable gel excision tips			
CSL- gelX4	4mm x 1mm 250/ bag	CSL- gelX 6.5	6.5mm x 1mm 250/ bag
CSL- gelX4RACK	4mm x 1mm 5 racks of 48	CSL- gelX6.5RACK	6.5mm x 1mm 5 racks of 48

package deals horizontals

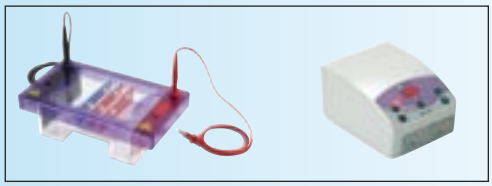
Cleaver Scientific now offers a comprehensive range of Combination Packages to address any budget or horizontal electrophoresis application.

Mini Horizontal with Power Supply



Ordering Information	
MSMINIDUO-MINI150	**Mini Horizontal Electrophoresis Package, includes: -**
	• MSMINIDUO - horizontal unit with 7x7cm and 7x10cm gel trays and combs (Page 6)
	• MINI150V - 150V, 600mA, 60W mini power supply (Page 39)
MSMINIDUO-MINI150KIT	**Mini Horizontal Electrophoresis Package with electrophoresis starter kit, includes: -**
	• MSMINIDUO-MINI150
	• CSL-LOADDYE – 10x Bromophenol Blue Loading Dye, 1ml (Page 15)
	• CSL-MDNA-1kb – 1kb DNA ladder (Page 15)
	• CSL-AG100 – 100g agarose (Page 15)
	• CSL-TBEP – Powdered Tris-Borate-EDTA Running Buffer – 10 pouches (Page 15)

Midi Horizontal with Power Supply

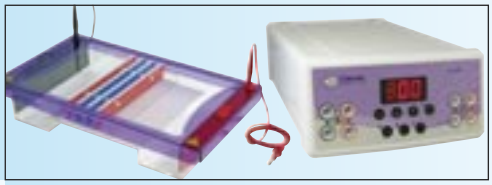


Ordering Information	
MSMIDIDUO-MINI300	**Midi Horizontal Electrophoresis Package, includes: -**
	• MSMIDIDUO - horizontal unit with 10x7cm and 10x10cm gel trays and combs (Page 7)
	• MINI300V - 300V, 400mA, 60W mini power supply (Page 39)
MSMIDIDUO-MINI300KIT	**Mini Horizontal Electrophoresis Package with electrophoresis starter kit, includes: -**
	• MSMIDIDUO-MINI300
	• CSL-LOADDYE – 10x Bromophenol Blue Loading Dye, 1ml (Page 15)
	• CSL-MDNA-1kb – 1kb DNA ladder (Page 15)
	• CSL-AG100 – 100g agarose (Page 15)
	• CSL-TBEP – Powdered Tris-Borate-EDTA Running Buffer – 10 pouches (Page 15)

Choice Horizontal with Power Supply

Ordering Information	
MSCHOICETRIO-CS300	**Choice Horizontal Electrophoresis Package, includes: -**
	• MSCHOICETRIO - horizontal unit with 15x7cm, 15x10cm and 15x15cm gel trays and combs (Page 8)
	• CS-300V - 300V, 700mA, 150W midi power supply (Page 39)
MSCHOICETRIO-CS300KIT	**Choice Horizontal Electrophoresis Package with electrophoresis starter kit, includes: -**
	• MSCHOICETRIO-CS300
	• CSL-LOADDYE – 10x Bromophenol Blue Loading Dye, 1ml (Page 15)
	• CSL-MDNA-1kb – 1kb DNA ladder (Page 15)
	• CSL-AG100 – 100g agarose (Page 15)
	• CSL-TBEP – Powdered Tris-Borate-EDTA Running Buffer – 10 pouches (Page 15)

Maxi Horizontal with Power Supply



Ordering Information	
MSMAXIDUO-CS300	**Maxi Horizontal Electrophoresis Package: -**
	• MSMAXIDUO - horizontal unit with 20x10cm and 20x20cm gel trays and combs (Page 9)
	• CS-300V - 300V, 700mA, 150W midi power supply (Page 39)

package deals horizontals

Combs and gel tray options may be changed at order.

Maxi Horizontal with Power Supply

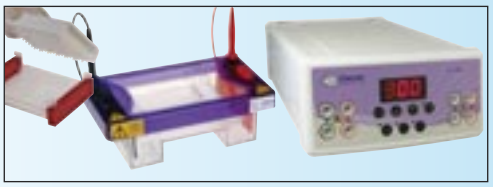
Ordering Information	
MSMAXIDUO-CS300KIT	**Maxi Horizontal Electrophoresis Package with electrophoresis starter kit, includes: -**
	• MSMAXIDUO-CS300
	• CSL-LOADDYE – 10x Bromophenol Blue Loading Dye, 1ml (Page 15)
	• CSL-MDNA-1kb – 1kb DNA ladder (Page 15)
	• CSL-AG100 – 100g agarose (Page 15)
	• CSL-TBEP – Powdered Tris-Borate-EDTA Running Buffer – 10 pouches (Page 15)

Screen Horizontal with Power Supply

Ordering Information	
MSSCREENTRIO-CS500	**Screen Horizontal Electrophoresis Package, includes: -**
	• MSSCREENTRIO - horizontal unit with 26x16cm, 26x24cm and 26x32cm gel trays and combs (Page 10)
	• CS-500V - 500V, 800mA, 300W maxi power supply (Page 39)
MSSCREENTRIO-CS500KIT	**Screen Horizontal Electrophoresis Package with electrophoresis starter kit, includes: -**
	• MSSCREENTRIO-CS500
	• CSL-LOADDYE – 10x Bromophenol Blue Loading Dye, 1ml (Page 15)
	• CSL-MDNA-1kb – 1kb DNA ladder (Page 15)
	• CSL-AG100 – 100g agarose (Page 15)
	• CSL-TBEP – Powdered Tris-Borate-EDTA Running Buffer – 10 pouches (Page 15)

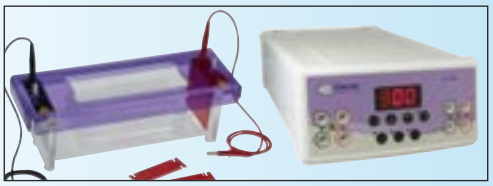
Midi96 Horizontal with Power Supply

Ordering Information	
MSMIDI96-CS300	**Midi96 Horizontal Electrophoresis Package, includes: -**
	• MSMIDI96 - horizontal unit with UV tray and 12x8-sample 1mm comb block (Page 12)
	• CS-300V - 300V, 700mA, 150W mini power supply (Page 39)
MSMIDI96-CS300KIT	**Midi96 Horizontal Electrophoresis Package with electrophoresis starter kit, includes: -**
	• MSMIDI96-CS300
	• CSL-LOADDYE – 10x Bromophenol Blue Loading Dye, 1ml (Page 15)
	• CSL-MDNA-1kb – 1kb DNA ladder (Page 15)
	• CSL-AG100 – 100g agarose (Page 15)
	• CSL-TBEP – Powdered Tris-Borate-EDTA Running Buffer – 10 pouches (Page 15)

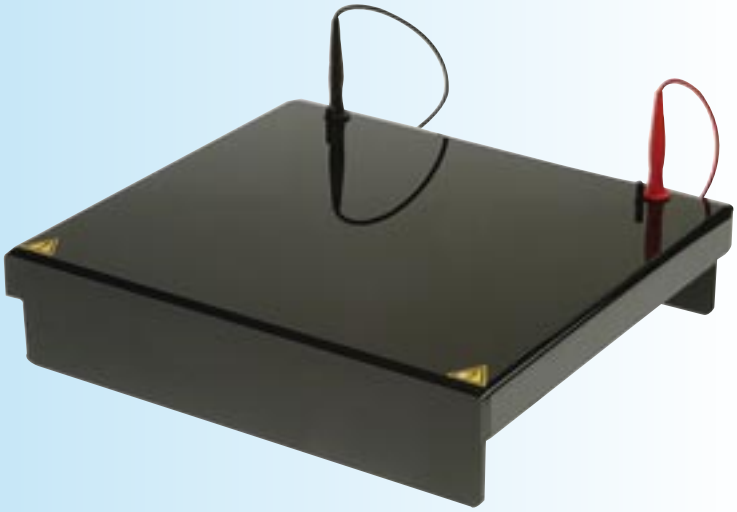


MultiSUB-4 Horizontal with Power Supply

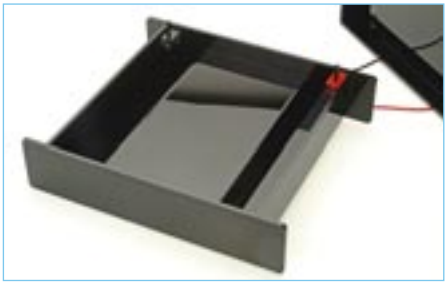
Ordering Information	
MSUB4-CS300	**MultiSUB-4 Horizontal Electrophoresis, includes: -**
	• MULTISUB-4 - horizontal unit with four 8x12cm gel trays and combs (Page 13)
	• CS-300V - 300V, 700mA, 150W midi power supply (Page 39)
MSUB4-CS300KIT	**MultiSUB-4 Horizontal Electrophoresis Package with electrophoresis starter kit, includes: -**
	• MSUB4-CS300
	• CSL-LOADDYE – 10x Bromophenol Blue Loading Dye, 1ml (Page 15)
	• CSL-MDNA-1kb – 1kb DNA ladder (Page 15)
	• CSL-AG100 – 100g agarose (Page 15)
	• CSL-TBEP – Powdered Tris-Borate-EDTA Running Buffer – 10 pouches (Page 15)



comet assay tanks



- For Single Cell Gel Electrophoresis
- Minimise exposure to light and reduce background DNA damage
- High efficiency cooling for enhanced resolution

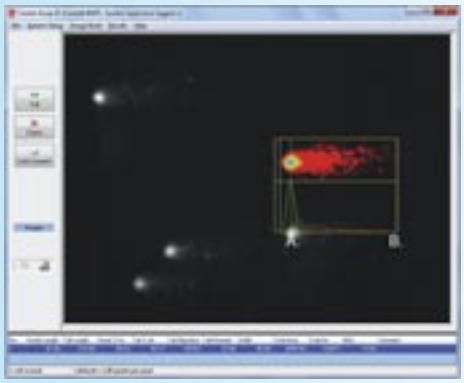


Cleaver Scientific COMET assay tanks are available in four slide formats to study single cell gel electrophoresis (SCGE), a technique made popular by drug toxicology and carcinogenesis studies for the detection and quantitation of DNA damage in cells. Each tank's robust construction from ebony acrylic ensures that cells remain free of exposure to background light and DNA damage during electrophoresis, while a cooled central platform provides a convenient surface for slide preparation and control of slide temperature during the assay. Following electrophoresis DNA damage may be measured using the highly recommended Comet Assay IV Software from Perceptive Instruments.

F250 Chiller

With PID control ensuring temperature stability within ±0.5°C, the F250 is the perfect recirculating chiller for active slide temperature control. This chiller also benefits from a maximum flow rate of 15 litres per minute and 0.35 bar pressure, while a small footprint and frontal vents allow multiple units to be aligned side-by-side if required. A versatile working temperature range of +5°C to +40°C makes the chiller suitable for use in other applications such as flat-bed isoelectric focusing.

The Comet Assay



Full Screen Shot of a Comet Profile within the Comet Assay IV Software.
A. The Comet 'Head' comprising largely intact genomic DNA.
B. The Comet 'Tail' of mobile damaged or fragmented DNA.

Background: First introduced in 1981 to quantify double-stranded DNA breakages in single cells exposed to γ-irradiation, the Comet Assay (or SCGE) has since been adapted to analyse specific DNA lesions and repair processes.

Overview: Following genotoxic insult, such as ionizing radiation, the resultant strand breakage of supercoiled duplex DNA reduces the size of the large genomic DNA from which these strands are separated or drawn out by electrophoresis. The genomic DNA then takes on the appearance of a 'comet' as its negatively charged broken ends and fragments migrate towards the anode during electrophoresis.

Method: After exposure to a genotoxic insult cells are suspended within low melting point agarose and embedded within a thin layer of agarose on a microscope slide. Cellular protein is then removed by lysis in detergent, when DNA is allowed to unwind in alkaline conditions before electrophoresis. The DNA is electrophoresed, stained and then analysed using software such as Perceptive Instruments Comet Assay IV.

Results: Microscopy imaging is used to measure DNA fluorescence upon staining. In DNA damaged cells the resultant image resembles a 'comet' with the cellular DNA separated into a head and tail. The head is mainly composed of intact genomic DNA, whereas any fragmented or damaged DNA is concentrated within and towards the tail.

Cleaver Scientific recommends Comet Assay IV scoring software from Perceptive Instruments. Please enquire by emailing sales@cleaverscientific.com.

Ordering Information

CSL-COM10	**Comet Assay Tank for 10 Slides**	CSL-CHILLER	Chiller unit for active slide temperature control
CSL-COM20	**Comet Assay Tank for 20 Slides**	Comet Assay IV	DNA damage and repair software scoring system
CSL-COM40	**Comet Assay Tank for 40 Slides**		(contact sales@cleaverscientific.com)
CSL-COM80	**Comet Assay Tank for 80 Slides**	F250	Julabo Chiller

clinical electrophoresis

- Compact High Resolution Systems for Clinical Electrophoresis
- Can accommodate cellulose acetate strips up to 24 x 20cm
- Complete range of cellulose acetate gels and kits
- Range includes Densitometer, Scanner and Software

Typical Applications

Clinical Electrophoresis Tests:- Haemoglobin, Serum Proteins for Monoclonal Gammapathies, Urine Proteins, Isoenzymes, Lipo and Glycoproteins and For Immunofixation

Cellulose acetate electrophoresis is an important technique in clinical diagnostics. This new range of cellulose acetate products offers a complete system solution for Research and Clinical Cellulose acetate electrophoresis procedures.

The Cellulose Acetate system is the ideal tank for both standard and wet cellulose acetate electrophoresis. This unit is designed for both routine and research requirements and is built to our high quality standard. The unit includes an adjustable support which enables easy and fast adjustment for different lengths of cellulose acetate strip.

To compliment this electrophoresis system, a range of cellulose acetate strips, kits and accessories is available.

CELLULOSE ACETATE GELS – a new complete range of wet cellulose acetate gels is available. These have the advantage that they can be used for a wide variety of clinical electrophoresis applications including haemoglobin, serum proteins for monoclonal gammapathies, urine proteins, isoenzymes, lipo and glycoproteins.

CellasGEL cellulose acetate gels are available in a variety of sizes and applications:- 2.5 x 14cm, 2.5 x 17cm, 5.7 x 14cm, 5.7 x 17cm, 5 x 24cm, 17 x 17cm, 6 x 7.6cm Helena, 5.7 x 10.2 arched.

KITS are available for multiple tests on serum proteins, haemoglobin, urine proteins and for immunofixation.

APPLICATORS – variety of rapid sample applicators are available for a selection of applications:-

- Two specimen applicator for semi micro samples on strips 2.5cm wide.
- Four specimen applicator for semi micro samples on strips 5.7cm wide.
- Four specimen applicator for Haemoglobin samples on strips 5.7cm wide.
- Six specimen applicator for samples on strips 5.7cm wide.

BRIDGES are available in a variety of formats for cellulose acetate sheets of dimensions and for arched and horizontal Helena types of gels.

DENSITOMETER – to complete the range, a universal densitometer scanner and software able to read 144 tests per minute is offered.

Specimen applicator

Ordering Information

CSLCELLAS	**Horizontal Unit for Cellulose Acetate Electrophoresis**
CSLDENS	TurboScan Software Densitometer (computer and scanner not included)
CSLSCAN	Flatbed Scanner for TurboScan software.

Technical Specifications

Strip dimensions	24 x 20cm (W x L) max.
Unit dimensions	30 x 30cm

Code	Description
CSLGEL2.514250	2.5x14 CellasGEL 250 micron, pack of 25
CSLGEL2.514200	2.5x14 CellasGEL 200 micron, pack of 100
CSLGEL2.517200	2.5x17 CellasGEL 200 micron, pack of 25
CSLGEL5.714250	5.7x14 CellasGEL 250 micron, pack of 25
CSLGEL5.714200	5.7x14 CellasGEL 200 micron, pack of 25
CSLGEL5.714250P	5.7x14 CellasGEL 250 micron Pratiga perforate, pack of 25
CSLGEL5.714200P	5.7x14 CellasGEL 200 micron Pratiga perforate, pack of 25
CSLGEL524190R	5x24 CellasGEL RS 190 micron Rectangular H.R., pack of 100
CSLGEL1717200	17x17 CellasGEL 200 micron, pack of 10
CSLGEL67.6H	CellasGEL /Myl (Helena size) 6x7.6, pack of 10
CSLGEL5.710.2A	CellasGEL /Myl for arched position electrophoresis 5.7x10.2, pack of 10
CSLKITCU	CellasKIT IFE Serum + Concentrated Urine (5+5 tests for 5 patients) on CellasGEL
CSLKITI2432	CSLKITI2432 CellasKIT Immunofixation (24 semimicro or 32 micro tests) on CellasGEL
CSLKITSP100200	CellasKIT Serum Proteins (100 semimicro or 200 micro tests) on CellasGEL
CSLKITSP150200	CellasKIT High Resolution Of Serum Proteins (150 semimicro or 200 micro tests) on CellasGEL
CSLKITHG100	CellasKIT Hemoglobins (100 semimicro tests) on CellasGEL

Kits

Code	Description
CSLAPPS22	Applicator Semimicro 2+2 for CellasGEL 2.5x14 cm and Kit code CSLKITCU
CSLAPPS4	Applicator Semimicro 4 for 1.2 _l/9mm – First type
CSLAPPM8	Applicator Micro 8 for CellasGEL
CSLAPPM8M	Applicator Micro 8 for CellasGEL/Myl
CSLAPPS18	Applicator Semimicro 18 for CellasGEL sheets 18.3 x14cm and 18.3 x17cm
SLAPPS18M	Applicator Semimicro 18 for CellasGEL/Myl sheets 19.85 x 7.6 cm
CSLKITIFE1	CellasKIT IFE 1 Patient (10 semimicro tests) 10.2x12 cm for CellasClear
CSLKITSP480	CellasKIT Serum Proteins (480 micro tests) on CellasClear
CSLBDG8.5L	CSLBDG8.5L Bridge 8.5 cm for CellasGEL sheets 18.3x14cm
CSLBDG11L	CSLBDG11L Bridge 11 cm for CellasGEL sheets 17x17cm
CSLBDG8.5S	CSLBDG8.5S Bridge 8.5 cm (standard size for CellasGEL kits) for CellasGEL strips 5.7x14 or 2.5x14cm
CSLBDG14RS	CSLBDG14RS Bridge 14 cm for CellasGEL RS Wedge 5x18.5 cm
CSLBDG11S	CSLBDG11S Bridge 11 cm for CellasGEL strips 5.7x17 cm
CSLBDGA	CSLBDGA Bridge for in arched position electrophoresis
CSLBDGH	CSLBDGH Bridge for horizontal position electrophoresis Helena type
CSL-CAB	Electrophoresis cable (Black & Red)

Other products are available in this range, please enquire.

omniPAGE....

- **Injection Moulded Mini Unit – durable, leak-proof environment for complete safety and long life**
- **Compatible with all major brands of precast gels**
- **Rapid Gel Casting and Loading ensures trouble free gel set-up**
- **Versatile – interchangeable modules for slab gel and 2-D electrophoresis as well as electroblotting using a single universal buffer tank**

SIMPLE, RAPID, LEAK-PROOF GEL CASTING....

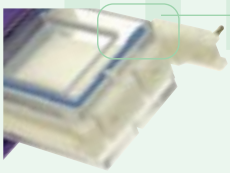
1 *Insert glass plates and slide gates to create efficient seal*

2 *Transfer to casting base and tighten cams*

3 *Insert gel solution and comb and allow to polymerise*

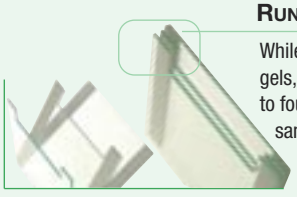
4 *Transfer to tank, fill with buffer and run*

mini



Pressure clamping frame

A unique single piece pressure frame offers the option of rapid single screw per side or new screw free set up. Even pressure and buffer contact across the plates results in even sample migration and efficient heat removal from the gel. Glass plates are 2mm thick to reduce breakage.



Run up to 4 gels at a time

While most vertical gel units can run only one or two gels, the omniPAGE Mini units can run one, two or up to four gels at any time using a triple glass plate sandwich.

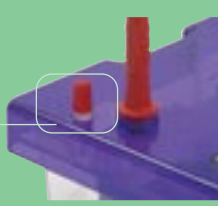
Effective buffer cooling

A simple to use cooling pack system ensures enhanced resolution without costly and time consuming additional equipment. No chiller, tap or obstructing connecting leads are required. The cooling pack is simply pre-chilled in a freezer and placed in the gel tank. Additionally, the use of cooling packs reduces buffer volume.

Extensive range of combs & spacers

- four thicknesses, colour coded
  - **black:** 0.75mm for ultra resolved bands
  - **white:** 1mm supplied as standard
  - **red:** 1.5mm for maximising sample volume
  - **blue:** 2mm for maximising sample volume
- options for Sample Prep
- options for MULTI-CHANNEL PIPETTE COMPATIBLE

The number of samples can be maximised using high tooth number combs

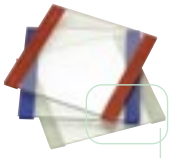


Elongated thumb locators, colour-coded to prevent polarity reversal and facilitate 'easy-off' lid removal.

SETTING A NEW STANDARD IN EVERTICAL ELECTROPHORESIS

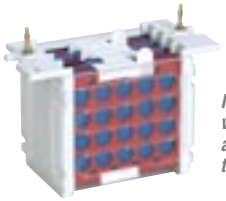
OMNI - *om-ni*- all, everything

The omniPAGE range of Vertical Gel Units combines ease of use with high resolution separations. Three sizes, Mini 10 x 10cm, Mini Wide 20 x 10cm and Maxi 20 x 20cm, share a host of common features including a guaranteed leak proof seal required for trouble free, rapid and uncomplicated gel casting. Utilising a built in gel running module eliminates time consuming transfer of glass plates during casting, a process which can cause gel damage and misalignment. Glass plates with permanently bonded spacers guarantee perfect spacer alignment. The glass plate sandwich is then simply inserted between pressure bars and the new zero screw slide clamps clicked into position. This ensures fast set up times while even pressure bars and ultra soft seals guarantee leak proof casting. Once the gel has polymerised, the gel running module is just inserted into the gel tank for electrophoresis.



Injection moulded spacers consistent with comb thickness for 'clean' well formation

INTERCHANGEABLE MODULES

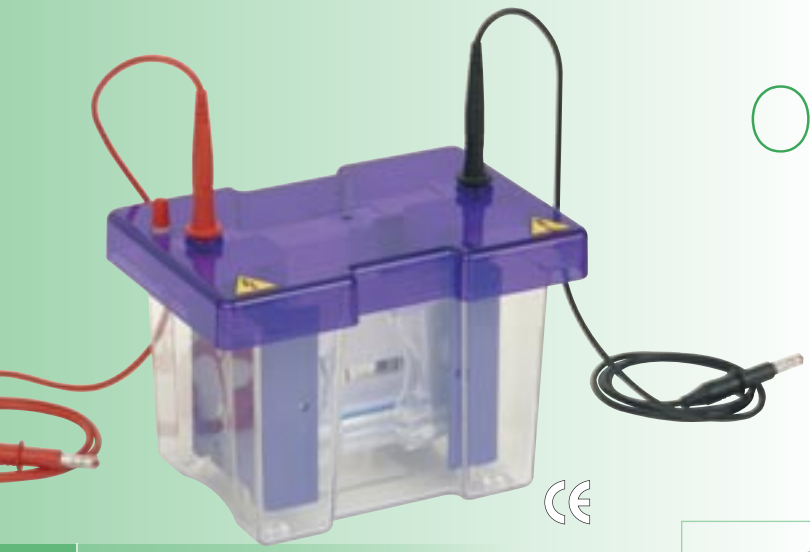


Increased capacity mini-vertical blotting module allows simultaneous transfer of 4 gels

Retractable connectors compatible with most major power supplies

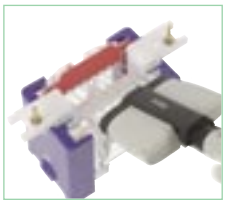
All units are CE marked and are in conformity with the relevant CE Safety Directives:
73/23/EEC: LOW VOLTAGE DIRECTIVE: IEC 61010-1:2001. EN 61010-1:2001;
89/336/EEC EMC DIRECTIVE: EN55011 Emissions, EN50082-1 Immunity.

omniPAGE mini



- Injection moulded construction
- Compatible with all 8 x 10 and 10 x 10cm precast gels (WxH)
- Rapid gel casting and loading
- Low buffer volumes
- Rapid set up cooling
- Run up to four gels

internal running module, clamp version



gel loading guides

omniPAGE Mini and optional accessories

Typical Applications

Mini SDS PAGE, Native PAGE, Gradient, Second dimension and Nucleic acid separations

Technical Specifications

Plate dimensions, Gel dimensions, (W x L)	10 x 10cm 7.5 x 8cm
Unit dimensions	19 x 13 x 15cm (W x D x H)
Max. sample capacity	80 samples, 20 samples per gel
Buffer volume	Min 250ml; Max 1200ml
Combs available : No. of samples Thicknesses	 1, 5, 8MC, 9, 10, 12, 16MC, 20 0.75, 1, 1.5, 2mm

The preferred unit for routine mini protein electrophoresis, the omniPAGE mini is constructed using the latest injection moulding manufacturing techniques. This gives a high quality, low cost product with unsurpassed finish, durability and strength.

The unit incorporates a sealing system which is compatible with all major types of 8 x 10cm and 10 x 10cm precast gel.

Gel casting and running utilise the same insert, no transfer of glass plates during gel casting is necessary. The insert contains the option of sliding clamps or just one screw per clamping bar side allowing very rapid set up of both hand cast and precast gels. Ultra soft silicone seals and pressure bars which surround the glass plates guarantee leak proof gel casting. 2mm thick glass plates prevent breakage and have bonded spacers for convenience.

Accessory electroblotting and tube gel modules are available which use the same outer tank and lid.

Ordering Information

CVS10D	**omniPAGE Mini, 10 x 10cm Dual, 2 sets of Glass Plates, 1mm thick bonded Spacers, 2 x 12 sample, 1mm thick combs. CLAMP VERSION**
CVS10DSYS	**omniPAGE Mini, 10 x 10cm Dual, 2 sets of Glass Plates, 1mm thick bonded Spacers, 2 x 12 sample, 1mm thick combs including caster. CLAMP VERSION**
CVS10PRE	**omniPAGE Mini, 10 x 10cm Dual. No accessories. CLAMP VERSION**
CVS10DSYS-CU	**omniPAGE Mini, 10 x 10cm Dual, 2 sets of Glass Plates, 1mm thick bonded Spacers, 2 x 12 sample, 1mm thick combs including caster. CLAMP VERSION, External casting upstand**
CVS10EXCASTER	External Casting Stand - No Casting Base
CVS10EXCASTERSYS	External Casting System - Upstand+ Base
VS10DCAST	10 x 10cm Casting Base
VS10DCASTM	Replacement Silicone Mat for 10 x 10cm Casting Base
CVS10DIRM	Inner Running Module
VS10ICB	Mini Cooling Pack
VS10-X-LG	Loading Guides x = sample number
VS10NG	10 x 10cm Notched Glass Plates 2mm thick (pk/2)
VS10PG	10 x 10cm Plain Glass Plates 2mm thick (pk/2)
VS10NGS0.75	10 x 10cm Notched Glass Plates with 0.75mm Bonded Spacers (pk/2)
VS10PGS0.75	10 x 10cm Plain Glass Plates with 0.75mm Bonded Spacers (pk/2)
VS10NGS1	10 x 10cm Notched Glass Plates with 1mm Bonded Spacers (pk/2)
VS10PGS1	10 x 10cm Plain Glass Plates with 1mm Bonded Spacers (pk/2)
VS10NGS1.5	10 x 10cm Notched Glass Plates with 1.5mm Bonded Spacers (pk/2)
VS10PGS1.5	10 x 10cm Plain Glass Plates with 1.5mm Bonded Spacers (pk/2)
VS10NGS2	10 x 10cm Notched Glass Plates with 2mm Bonded Spacers (pk/2)
VS10PGS2	10 x 10cm Plain Glass Plates with 2mm Bonded Spacers (pk/2)
VS10DP	Dummy Plate, 10 x 10cm
VS10S0.75	10cm Spacers - 0.75mm (pk/2)
VS10S1	10cm Spacers - 1mm thick (pk/2)
VS10S1.5	10cm Spacers - 1.5mm thick (pk/2)
VS10S2	10cm Spacers - 2mm thick (pk/2)
RPW-0.2	Replacement Platinum Wire - 0.2mm, 50cm

0.75mm

Code	Description	Sample Volume per well
VS10-1-0.75	Comb 1 Prep, 1 Marker, 0.75mm thick	500µl
VS10-5-0.75	Comb 5 sample, 0.75mm thick	70µl
VS10-8MC-0.75	Comb 8 sample MC, 0.75mm thick	40µl
VS10-9-0.75	Comb 9 sample, 0.75mm thick	35µl
VS10-10-0.75	Comb 10 sample, 0.75mm thick	30µl
VS10-12-0.75	Comb 12 sample, 0.75mm thick	25µl
VS10-16MC-0.75	Comb 16 sample MC, 0.75mm thick	20µl
VS10-20-0.75	Comb 20 sample, 0.75mm thick	15µl

1.0mm

Code	Description	Sample Volume per well
VS10-1-1	Comb 1 Prep, 1 Marker, 1mm thick	650µl
VS10-5-1	Comb 5 sample, 1mm thick	100µl
VS10-8MC-1	Comb 8 sample MC, 1mm thick	60µl
VS10-9-1	Comb 9 sample, 1mm thick	50µl
VS10-10-1	Comb 10 sample, 1mm thick	40µl
VS10-12-1	Comb 12 sample, 1mm thick	35µl
VS10-16MC-1	Comb 16 sample MC, 1mm thick	25µl
VS10-20-1	Comb 20 sample, 1mm thick	20µl

1.5mm

Code	Description	Sample Volume per well
VS10-1-1.5	Comb 1 Prep, 1 Marker, 1.5mm thick	1000µl
VS10-5-1.5	Comb 5 sample, 1.5mm thick	140µl
VS10-8MC-1.5	Comb 8 sample MC, 1.5mm thick	80µl
VS10-9-1.5	Comb 9 sample, 1.5mm thick	70µl
VS10-10-1.5	Comb 10 sample, 1.5mm thick	30µl
VS10-12-1.5	Comb 12 sample, 1.5mm thick	50µl
VS10-16MC-1.5	Comb 16 sample MC, 1.5mm thick	40µl
VS10-20-1.5	Comb 20 sample, 1.5mm thick	30µl

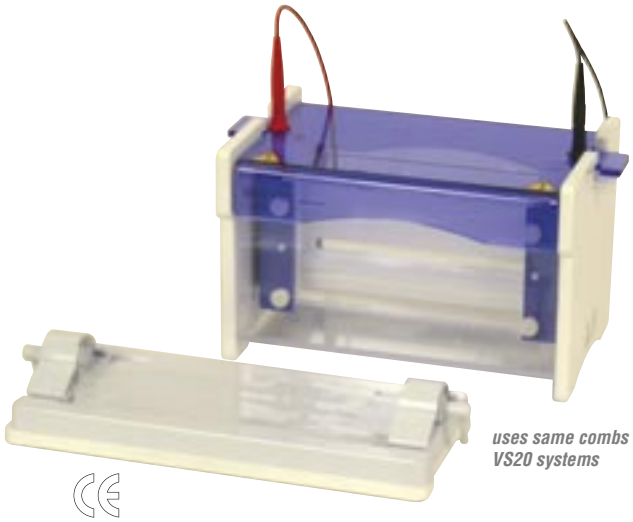
2.0mm

Code	Description	Sample Volume per well
VS10-1-2	Comb 1 Prep, 1 Marker, 2mm thick	1300µl
VS10-5-2	Comb 5 sample, 2mm thick	200µl
VS10-8MC-2	Comb 8 sample MC, 2mm thick	120µl
VS10-9-2	Comb 9 sample, 2mm thick	100µl
VS10-10-2	Comb 10 sample, 2mm thick	80µl
VS10-12-2	Comb 12 sample, 2mm thick	70µl
VS10-16MC-2	Comb 16 sample MC, 2mm thick	50µl
VS10-20-2	Comb 20 sample, 2mm thick	40µl

Combs, spacers and accessories also available in 0.5mm MC = multichannel pipette compatible

combs

omniPAGE mini wide



uses same combs as VS20 systems

- Offers the capacity of two mini gels on a single gel
- Rapid gel casting and loading
- Optional low or high buffer volumes
- Rapid set up cooling

For combs, see page 24

Typical Applications

Mini SDS PAGE, Native PAGE, Gradient, Second dimension and Nucleic acid separations

The omniPAGE mini wide vertical gel unit with a gel width of 20cm effectively allows double the number of samples to be resolved as the omniPAGE mini unit. This allows consistency of sample comparison on a single gel and is designed for those with greater than 20 samples to compare and resolve.

Simple set up using ultra soft silicone seals guarantees trouble free glass plate loading and gel casting. Dual gaskets on the gel running insert along with notched and plain glass plates ensure leak proof gel running. Rapid set up cooling retains resolution in extended separations and also saves on buffer volume without affecting run quality.

4mm thick glass plates reduce breakage and have bonded spacers for added convenience. A wide range of accessories is available allowing many techniques to be performed using the same unit. Prep combs can be used to maximise sample loading and recovery. Accessory electroblotting and tube gel modules are available which use the same outer tank and lid.

Technical Specifications

Plate dimensions, Gel dimensions, (W x L)	20 x 10cm 18 x 8cm
Unit dimensions	26 x 16 x 16cm (W x D x H)
Max. sample capacity	192 samples, 48 samples per gel
Buffer volume	Min 600ml; Max 2800ml
Combs available : No. of samples Thicknesses	 1, 5, 10, 18MC, 24, 30, 36MC, 48 0.75, 1, 1.5, 2mm

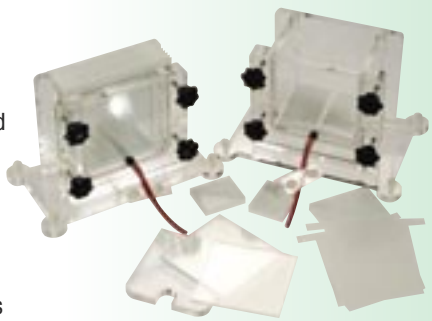
Ordering Information

VS10WD	**omniPAGE Mini Wide, 20 x 10cm Dual, 2 sets of Glass Plates with 1mm thick bonded Spacers, 2 x 24 sample, 1mm thick combs, cooling pack**
VS10WDSYS	**omniPAGE Mini Wide, 20 x 10cm Dual, 2 sets of Glass Plates with 1mm thick bonded Spacers, 2 x 24 sample, 1mm thick combs, cooling pack including caster**
VS10WDSYS-CU	**omniPAGE Mini Wide, 20 x 10cm Dual, 2 sets of Glass Plates, 1mm thick bonded Spacers, 2 x 24 sample, 1mm thick combs including caster, External casting upstand**

VS10WEXCASTER	VS10W External Casting Stand - No Casting Base	VS10WPGS0.75	20 x 10cm Plain Glass Plates with 0.75mm Bonded Spacers (pk/2)
VS20CAST	20 x 10cm Casting Base	VS10WNGS1	20 x 10cm Notched Glass Plates with 1mm Bonded Spacers (pk/2)
VS20DCASTM	Replacement Silicone Mat for 20 x 10cm Casting Base	VS10WPGS1	20 x 10cm Plain Glass Plates with 1mm Bonded Spacers (pk/2)
VS10WDIRM	Inner Running Module	VS10WPGS1.5	20 x 10cm Plain Glass Plates with 1.5mm Bonded Spacers (pk/2)
VS20-x -LG	Loading guides for omniPAGE mini combs, x = comb well number	VS10WPGS2	20 x 10cm Plain Glass Plates with 2mm Bonded Spacers (pk/2)
VS10WNG	20 x 10cm Notched Glass Plates 4mm thick (pk/2)	VS10WDP	Dummy Plate, 20 x 10cm
VS10WPG	20 x 10cm Plain Glass Plates 4mm thick (pk/2)	RPW-0.2	Replacement Platinum Wire - 0.2mm, 50cm
VS10WNGS0.75	20 x 10cm Notched Glass Plates with 0.75mm Bonded Spacers (pk/2)	VS20ICB	Maxi Cooling Pack

multiple minigel casting

- Integral levelling feet and level bubble
- Standard and gradient gels can be poured
- Choice of 6, 12 or 24 gel casting models



Advance casting of multiple mini gels can help to achieve consistent results between runs. These multiple gel casting systems are tailored for use with omniPAGE mini vertical electrophoresis units; with three models of 6, 12 and 24 gel capacities. Fewer gels can be poured if required using the acrylic saver blocks supplied with each system.

The fixed hinged clamps allows the gel sandwich to be adjusted to the correct pressure irrespective of the number or the thickness of gels being poured. Separation sheets allow the easy separation of the glass plates after pouring.

Ordering Information

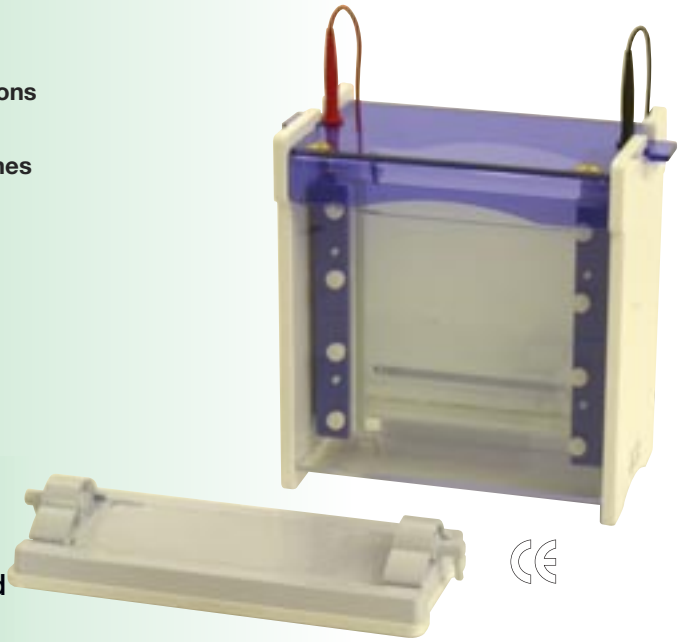
CSL-6CAST	6 gel caster for 8 x 10cm or 10 x 10cm gels	CSL-GM15	15ml Gradient Mixer	CSL-GM100	100ml Gradient Mixer
CSL-12CAST	12 gel caster for 8 x 10cm or 10 x 10cm gels	CSL-GM25	25ml Gradient Mixer	CSL-GM500	500ml Gradient Mixer
CSL-24CAST	24 gel caster for 8 x 10cm or 10 x 10cm gels	CSL-GM50	50ml Gradient Mixer		

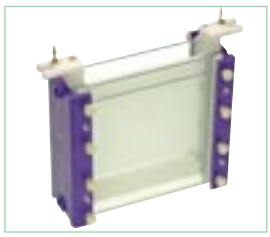
gradient mixers

Ideal for Caesium, Sucrose and Gel gradients these Gradient Mixers comprise two chambers – a reservoir and a mixing chamber with an interconnecting valve. A second valve regulates the output flow from the mixing chamber. All mixers have a flat base which allows them to be placed on a magnetic stirrer. A magnetic stirring bar can be placed directly in the mixing chamber to ensure a constant gradient. The support rod allows the mixer to be fixed to a retort stand for extra stability.

omniPAGE maxi

- Ideal for high resolution separations
- Rapid gel casting and loading
- Optional low or high buffer volumes
- Rapid set up cooling





Typical Applications

Maxi SDS PAGE, Native PAGE, Gradient, Second dimension and Nucleic acid separations

Technical Specifications

Plate dimensions, Gel dimensions, (W x L)	20 x 20cm 16 x 17.5cm
Unit dimensions	26 x 16 x 28cm (W x D x H)
Max. sample capacity	192 samples, 48 samples per gel
Buffer volume	Min 1200ml; Max 5600ml
Combs available : No. of samples Thicknesses	 1, 5, 10, 18MC, 24, 30, 36MC, 48 0.75, 1, 1.5, 2mm

The preferred unit for maxi protein electrophoresis, the omniPAGE maxi unit combines convenient ease of use features with high resolution separations. Simple set up using ultra soft silicone seals guarantees trouble free glass plate loading and gel casting.

Dual gaskets on the gel running insert along with notched and plain glass plates ensure leak proof gel running. Rapid set up cooling retains resolution in extended separations and also saves on buffer volume without affecting run quality.

Glass plates reduce breakage and have bonded spacers for added convenience. A wide range of accessories is available allowing many techniques to be performed using the same unit. Prep combs can be used to maximize sample loading and recovery. Accessory electroblotting and tube gel modules are available which use the same outer tank and lid.

Ordering Information

VS20D	**omniPAGE Maxi, 20 x 20cm Dual with Glass Plates with bonded 1mm thick spacers, 2x 24 sample combs, cooling pack, dummy plate**
VS20DSYS	**omniPAGE Maxi, 20 x 20cm Dual with Glass Plates with bonded 1mm thick spacers, 2x 24 sample combs, cooling pack, dummy plate and Casting Base**
VS20DSYS-CU	**omniPAGE Maxi, 20 x 20cm Dual, 2 sets of Glass Plates, 1mm thick bonded Spacers, 2 x 24 sample, 1mm thick combs including caster, External casting upstand**

VS20WEXCASTER	VS20 External Casting Stand - No Casting Base	VS20NGS1	20 x 20cm Notched Glass Plates with 1mm Bonded Spacers (pk/2)
VS20DCAST	20 x 20cm Dual Casting Base	VS20PGS1	20 x 20cm Plain Glass Plates with 1mm Bonded Spacers (pk/2)
VS20DCASTM	Replacement Silicone Mat for 20 x 20cm Casting Base	VS20PGS1.5	20 x 20cm Plain Glass Plates with 1.5mm Bonded Spacers (pk/2)
VS20DIRM	Inner Running Module	VS20PGS2	20 x 20cm Plain Glass Plates with 2mm Bonded Spacers (pk/2)
VS20ICB	Maxi Cooling Pack	VS20DP	Dummy Plate, 20 x 20cm
VS20-x -LG	Loading guides for omniPAGE maxi combs, x = comb well number	VS20S0.75	20cm Spacers - 0.75mm (pk/2)
VS20NG	20 x 20cm Notched Glass Plates 4mm thick (pk/2)	VS20S1	20cm Spacers - 1mm thick (pk/2)
VS20PG	20 x 20cm Plain Glass Plates 4mm thick (pk/2)	VS20S1.5	20cm Spacers - 1.5mm thick (pk/2)
VS20NGS0.75	20 x 20cm Notched Glass Plates with 0.75mm Bonded Spacers (pk/2)	VS20S2	20cm Spacers - 2mm thick (pk/2)
VS20PGS0.75	20 x 20cm Plain Glass Plates with 0.75mm Bonded Spacers (pk/2)	RPW-0.2100	Replacement Platinum Wire - 0.2mm, 100cm

0.75mm

Code	Description	Sample Volume per well
VS20-1-0.75	Comb 1 Prep, 1 Marker, 0.75mm thick	1100µl
VS20-5-0.75	Comb 5 sample, 0.75mm thick	160µl
VS20-10-0.75	Comb 10 sample, 0.75mm thick	80µl
VS20-18MC-0.75	Comb 18 sample MC, 0.75mm thick	40µl
VS20-24-0.75	Comb 24 sample, 0.75mm thick	30µl
VS20-30-0.75	Comb 30 sample, 0.75mm thick	25µl
VS20-36MC-0.75	Comb 36 sample MC, 0.75mm thick	20µl
VS20-48-0.75	Comb 48 sample, 0.75mm thick	15µl

1.0mm

Code	Description	Sample Volume per well
VS20-1-1	Comb 1 Prep, 1 Marker, 1mm thick	1500µl
VS20-5-1	Comb 5 sample, 1mm thick	200µl
VS20-10-1	Comb 10 sample, 1mm thick	100µl
VS20-18MC-1	Comb 18 sample MC, 1mm thick	50µl
VS20-24-1	Comb 24 sample, 1mm thick	40µl
VS20-30-1	Comb 30 sample, 1mm thick	35µl
VS20-36MC-1	Comb 36 sample MC, 1mm thick	25µl
VS20-48-1	Comb 48 sample, 1mm thick	20µl

1.5mm

Code	Description	Sample Volume per well
VS20-1-1.5	Comb 1 Prep, 1 Marker, 1.5mm thick	2200µl
VS20-5-1.5	Comb 5 sample, 1.5mm thick	320µl
VS20-10-1.5	Comb 10 sample, 1.5mm thick	160µl
VS20-18MC-1.5	Comb 18 sample MC, 1.5mm thick	80µl
VS20-24-1.5	Comb 24 sample, 1.5mm thick	60µl
VS20-30-1.5	Comb 30 sample, 1.5mm thick	50µl
VS20-36MC-1.5	Comb 36 sample MC, 1.5mm thick	40µl
VS20-48-1.5	Comb 48 sample, 1.5mm thick	30µl

2.0mm

Code	Description	Sample Volume per well
VS20-1-2	Comb 1 Prep, 1 Marker, 2mm thick	3000µl
VS20-5-2	Comb 5 sample, 2mm thick	400µl
VS20-10-2	Comb 10 sample, 2mm thick	200µl
VS20-18MC-2	Comb 18 sample MC, 2mm thick	100µl
VS20-24-2	Comb 24 sample, 2mm thick	80µl
VS20-30-2	Comb 30 sample, 2mm thick	70µl
VS20-36MC-2	Comb 36 sample MC, 2mm thick	50µl
VS20-48-2	Comb 48 sample, 2mm thick	40µl

MC = multichannel pipette compatible

modular systems

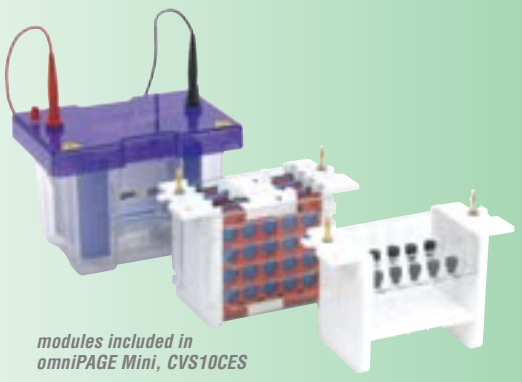
components and accessories of omniPAGE Mini, CVS10CES

- **Economy of bench space and cost**
- **Enhanced reproducibility**
- **Simple to use casting**
- **Rapid set up cooling**

The omniPAGE range of Modular Vertical Gel Systems allow multiple electrophoresis techniques to be performed in the same unit. Using the same main tank and lid, three different inserts are interchangeable for slab gel, tube gel and electroblotting techniques. These systems are available in three size options, Mini 10 x 10cm, Mini Wide 20 x 10cm and Maxi 20 x 20cm and are available as individual, combination or complete modular systems. Combination and modular systems offer maximum value and space and have the added benefit of increased consistency which results from using the same universal base and lid.

Mini, Mini Wide and Maxi Complete Modular Systems

These systems include all modules and accessories required for Slab Gel Electrophoresis, 2-D Electrophoresis and Electroblotting. The central component is the omniPAGE Mini Vertical unit, Mini Wide Vertical Unit or omniPAGE Maxi Vertical unit. These include a rapid and intuitive casting system, enhanced and easy to set up cooling system and have increased capacity – can run up to four gels per run. In addition, the omniPAGE Tube gel module is capable of resolving up to 10 first dimension gels and the Electroblotting module has a three blot capacity. The package includes all the necessary accessories for Slab Gel, First Dimension and Electroblotting. Each of these techniques benefits from rapid set up cooling packs which provide enhanced resolution even during high intensity 2-D electrophoresis and Electroblotting.



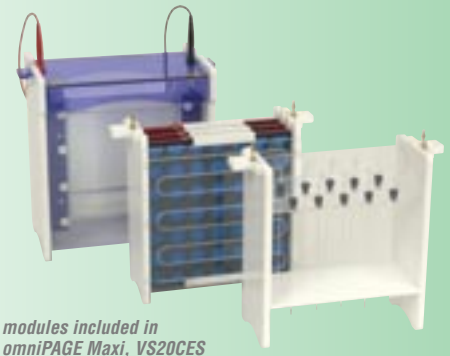
modules included in omniPAGE Mini, CVS10CES

Ordering Information

CVS10CES	**Complete system for Mini Vertical Electrophoresis comprising:**
	1x omniPAGE Mini Vertical Unit which includes: 2x2mm thick notched glass plates, 2x2mm thick plain glass plates with
	1mm thick bonded spacers, 1x dummy plate, 2x combs (1mm thick 12 samples), 1x casting base, silicone mat, cooling pack.
	plus: 1x Capillary Electrophoresis Module which includes: internal running module for tube gels, capillary tubes,
	blanking plugs, 2-D combs and spacers
	plus: 1x Electroblotting Module comprising: internal electroblotting module, 3x compression cassettes for gel sizes
	up to 10x10cm and 16x fibre pads.
VS10WCES	**Complete Mini Wide (20x10cm) Vertical Electrophoresis Modular System, comprising:**
	1x omniPAGE Mini Wide Vertical Unit which includes: 2x4mm thick notched glass plates, 2x4mm thick plain glass plates with
	1mm thick bonded spacers, 1x dummy plate, 2x combs (1mm thick, 24 samples), 1x casting base, silicone mat, cooling pack.
	plus: 1x Capillary Electrophoresis Module which includes: internal running module for tube gels, capillary tubes,
	blanking plugs, 2-D combs and spacers
	plus: 1x Electroblotting Module comprising: internal electroblotting module, 4x compression cassettes for gel sizes
	up to 20x10cm and 12x fibre pads.
VS20CES	**Complete system for Maxi Vertical Electrophoresis comprising:**
	1x omniPAGE Maxi Vertical Unit which includes: 2x4mm thick notched glass plates, 2x4mm thick plain glass plates with
	1mm thick bonded spacers, 1x dummy plate, 2x combs (1mm thick 24 samples), 1x casting base, silicone mat, cooling pack.
	plus: 1x Capillary Electrophoresis Module which includes: internal running module for tube gels, capillary tubes,
	blanking plugs, 2-D combs and spacers.
	plus: 1x Electroblotting Module comprising: internal electroblotting module, 3x compression cassettes for gel sizes
	up to 20x20cm and 12x fibre pads.

Technical Specifications

Unit dimensions (W x D x H)	Mini 19 x 13 x 15cm Mini Wide 26 x 16 x 16cm Maxi 26 x 16 x 28cm
Max. sample, Mini capacity	Slab 80 samples, 20 samples /gel Tube - 10 tubes; Blot - 3 blots
Max. sample, Mini Wide capacity	Slab 192 samples, 48 samples /gel Tube - 10 tubes; Blot - 3 blots
Max. sample, Maxi capacity	Slab 192 samples, 48 samples /gel Tube - 10 tubes; Blot - 3 blots
Buffer volume	Mini: Min 250ml; Max 1200ml Mini Wide: Min 600ml; Max 2800ml Maxi: Min 1200ml; Max 5600ml



modules included in omniPAGE Maxi, VS20CES

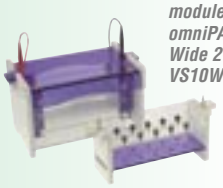
omniPAGE 2D systems

Mini, Mini Wide and Maxi Complete 2-D Systems

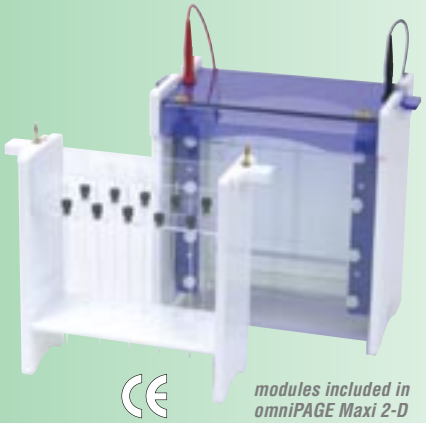
- Rapid set-up electrofocusing
- 10 tube capacity
- Extended accessory range
- Enhanced cooling features

The omniPAGE 2-D Systems include both modules required for Slab Gel and First Dimension Electrophoresis and accessories, to provide a complete Mini, Mini Wide or Maxi 2-D system. The Tube Gel Module includes a rapid release gasket for easy tube extraction. Focusing can be accomplished in as little as three hours in the Mini Unit. Disposable capillary tubes are included for added convenience, plus 2-D combs and spacers which are colour coded according to thickness for easy identification.

modules included in omniPAGE Mini 2-D System, CVS10C2DS



modules included in omniPAGE Mini Wide 2-D System, VS10WC2DS



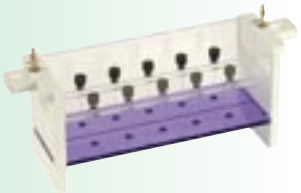
modules included in omniPAGE Maxi 2-D System, VS20C2DS

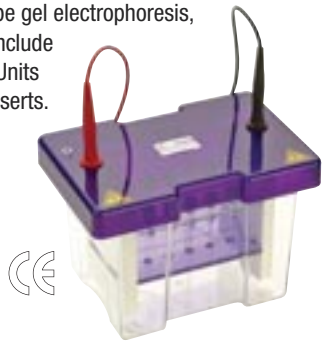
Ordering Information

CVS10C2DS	**Complete Mini 2-D System comprising:**
	1x omniPAGE Mini Vertical Unit which includes: 2x2mm thick notched glass plates, 2x2mm thick plain glass plates with 1mm thick bonded spacers, 1x dummy plate, 2x combs (1mm thick 12 samples), 1x casting base, silicone mat, cooling pack. plus: 1x Capillary electrophoresis module which includes: internal running module for tube gels, capillary tubes, blanking plugs, 2-D combs and spacers.
VS10WC2DS	**Complete Mini Wide 2-D System comprising:**
	1x omniPAGE Mini Wide Vertical Unit which includes: 2x4mm thick notched glass plates, 2x4mm thick plain glass plates with 1mm thick bonded spacers, 1x dummy plate, 2x combs (1mm thick 24 samples), 1x casting base, silicone mat, cooling pack. plus: 1x Capillary electrophoresis module which includes: internal running module for tube gels, capillary tubes, blanking plugs, 2-D combs and spacers.
VS20C2DS	**Complete Maxi 2-D System comprising:**
	1x omniPAGE Maxi Vertical Unit which includes: 2x4mm thick notched glass plates, 2x4mm thick plain glass plates with 1mm thick bonded spacers, 1x dummy plate, 2x combs (1mm thick 24 samples), 1x casting base, silicone mat, cooling pack. plus: 1x Capillary Electrophoresis Module which includes: internal running module for tube gels, capillary tubes, blanking plugs, 2-D combs and spacers

Tube Gel Units, inserts and accessories

These stand-alone, complete units for first dimension capillary/tube gel electrophoresis, Mini 10x10cm, Mini Wide 20x10cm and Maxi 20x20cm formats, include omniPAGE tank and lid, tube gel insert, tubes and blanking ports. Units are interchangeable with omniPAGE slab gel and electroblotting inserts.





Ordering Information

VS10DC	**omniPAGE Mini Tube Gel Unit, 10x10cm with tank and lid, glass capillary tubes, blanking ports and cooling pack.**		
VS10DCI	omniPAGE Mini Tube Gel Insert - includes glass tubes and blanking ports.		
VS10WDC	**omniPAGE Mini Tube Wide Gel Unit, 20x10cm with tank and lid, glass capillary tubes, blanking ports and cooling pack**		
VS10WDCI	omniPAGE Mini Tube Wide Gel Insert - includes glass tubes and blanking ports.		
MCT10	Mini Capillary Tubes, pk/100	MCT101.5	Mini Capillary Tubes, 1.5mm, pk/100
VS20DC	**omniPAGE Maxi Tube Gel Unit, 20x20cm with tank and lid, glass capillary tubes, blanking ports and cooling pack**		
VS20DCI	omniPAGE Maxi Tube Gel Insert - includes glass tubes and blanking ports.		
MCT20	Maxi Capillary Tubes, pk/100	MCT201.5	Maxi Capillary Tubes, 1.5mm, pk/100
MCBP	Mini and Maxi Capillary Blanking ports		

isoelectric focusing system

- For IPG strip and IEF gel applications
- Large cooling platform area
- Pick and place easy to position electrodes
- Grid for accurate electrode alignment
- Rehydration tray also available

The CSL-IEF system has been designed to perform all flat bed IEF techniques, including wick-based electrophoresis with horizontal and hand-cast IEF gels, and focusing with IPG strips. The unit includes a large cooling platform which offers increased strip capacity and active gel area. Uniform cooling of the platform is achieved using a large ceramic plate that may be connected to any standard chiller via quick-fit connecters for enhanced gel or strip cooling. An optional rehydration tray is also available for overnight rehydration of up to twelve IPG strips before use.

Low cost, high specification Chiller available for use with CSL IEF flatbed unit.

Ordering Information

CSL-IEF	**Flatbed IEF system for IEF strips and gels**		
CSL-CHILLER	**Chiller for Electrophoresis systems**	**F250**	**Julabo Chiller**
CSL-IEFPOS	Replacement positive electrode	CSL-IEFFRME	Replacement electrode frame
CSL-IEFNEG	Replacement negative electrode	CSL-RHYDTRY	
CSL-IEFPLT	Replacement Glass platform	Rehydration Tray	

For 110 V AC version Chiller, please add '-$' as a suffix to the appropriate code

Technical Specifications

Max strip length	26cm
Max gel dimensions	26 x 26cm
Unit dimensions (W x D x H)	55 x 35 x 10cm

second stage 2-D

The omniPAGE VS30 unit has been designed to provide a convenient unit for the second stage of 2-D electrophoresis.

The 26cm active gel width provides a large gel area to resolve large IEF strips. In combination with the IEF system above, this offers a complete package for 2-D electrophoresis. The unit utilises the omniPAGE advanced design features to provide convenient ease of use with high resolution separations.

Rapid set up cooling retains resolution in extended separations and also saves on buffer volume without affecting run quality. Four gels can be resolved per run. A wide range of accessories is available to allow easy transition between 2-D and standard vertical electrophoresis techniques. In particular different types of 2-D comb allow a wide degree of versatility in sample selection and gel set-up.

- Ideal for second dimension electrophoresis
- Accepts strips up to 26cm in length
- Rapid set up coolpacks for enhanced resolution

Technical Specifications

Unit dimensions	36 x 33 x 18cm (W x H x D)
Plate dimensions	30 x 22cm (W x L)
Gel dimensions	28 x 20cm (W x L)
Max sample	300 samples per run; 75 samples per gel
Buffer volume	Min 1800ml, Max 8400ml
Combs available	
No. of teeth	1, 2, 4, 28MC, 56MC, 75
Thicknesses	0.25, 0.35, 0.5, 1, 1.5, 2.0mm

Ordering Information

VS30D	**omniPAGE Maxi Plus, 30 x 22cm Dual with Glass Plates with bonded 1.5mm spacers, 2 x 28 sample combs, 2 x 2-D combs, cooling pack, dummy plate**		
VS30DSYS	**VS30D with Casting Base**	VS30NGS1	30 x 22cm Notched Glass Plates with 1mm Bonded Spacers (pk/2)
VS30BI	omniPAGE VS30 Blot Maxi Insert - includes 3 cassettes and 6 fibre pads.	VS30PGS1	30 x 22cm Plain Glass Plates with 1mm Bonded Spacers (pk/2)
VS30DCAST	30 x 22cm Dual Casting Base	VS30PGS1.5	30 x 22cm Plain Glass Plates with 1.5mm Bonded Spacers (pk/2)
VS30DCASTM	Replacement Silicone Mat for 30 x 22cm Casting Base	VS30PGS2	30 x 22cm Plain Glass Plates with 2mm Bonded Spacers (pk/2)
VS30DIRM	Inner Running Module	VS30DP	Dummy Plate, 30 x 22cm
VS30ICB	Maxi Cooling Pack	VS30S0.75	22cm Spacers - 0.75mm (pk/2)
VS30-x -LG	Loading guides for omniPAGE maxi combs, x = comb well number	VS30S1	22cm Spacers - 1mm thick (pk/2)
VS30NG	30 x 22cm Notched Glass Plates 4mm thick (pk/2)	VS30S1.5	22cm Spacers - 1.5mm thick (pk/2)
VS30PG	30 x 22cm Plain Glass Plates 4mm thick (pk/2)	VS30S2	22cm Spacers - 2mm thick (pk/2)
VS30NGS0.75	30 x 22cm Notched Glass Plates with 0.75mm Bonded Spacers (pk/2)	RPW-0.2100	Replacement Platinum Wire - 0.2mm, 100cm
VS30PGS0.75	30 x 22cm Plain Glass Plates with 0.75mm Bonded Spacers (pk/2)		

1.0mm combs

Code	Description	Sample Volume per well
VS30-1-1	Comb 1 Prep, 1 Marker, 1mm thick	2250µl
VS30-2-1	Comb 2 sample, 1mm thick	1125µl
VS30-4-1	Comb 4 sample, 1mm thick	550µl
VS30-28MC-1	Comb 28 sample, 1mm thick MC compatible	80µl
VS30-56MC-1	Comb 56 sample, 1mm thick MC compatible	40µl
VS30-75-1	Comb 75 sample, 1mm thick MC compatible	25µl

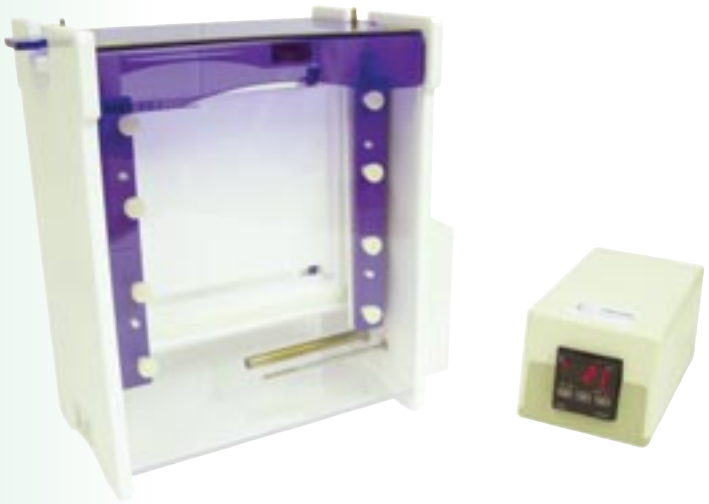
1.5mm combs

Code	Description	Sample Volume per well
VS30-1-1.5	Comb 1 Prep, 1 Marker, 1.5mm thick	3375µl
VS30-2-1.5	Comb 2 sample, 1.5mm thick	1680µl
VS30-4-1.5	Comb 4 sample, 1.5mm thick	825µl
VS30-28MC-1.5	Comb 28 sample, 1.5mm thick MC compatible	120µl
VS30-56MC-1.5	Comb 56 sample, 1.5mm thick MC compatible	60µl
VS30-75-1.5	Comb 75 sample, 1.5mm thick MC compatible	37µl

Combs also available in other thicknesses and sample number, please enquire

DGGE page with gradient mixer and caster

- **Maximum 96-sample throughput**
- **Large format – 20 x 20cm glass plates**
- **Use with 100ml gradient mixer to make two 1mm parallel denaturing gradient gels**
- **Compatible with microplates and thermal cycler blocks**



Typical Applications

Detection of single base changes and polymorphisms in genomic cloned and amplified DNA fragments

The omniPAGE-DGGE denaturing gradient gel electrophoresis unit can run two 20 x 20cm polyacrylamide gels for the detection of single base changes and polymorphisms in cloned or amplified DNA fragments. It is ideal for the study of mutations and DNA polymorphisms critical in disease. This system is primarily for parallel denaturing gradient electrophoresis.

The full range of "DGGE" analysis can be performed in this unit. During Denaturing Gradient Gel Electrophoresis, "DGGE", the buffer in the unit is heated using a 400-watt heater and the temperature controlled by an external temperature control connected to an internal sensor. This allows the gel temperature to be set to the melting temperature (Tm) of the amplified DNA polymorphism mutation of interest.

The temperature can be adjusted in 1°C increments up to a maximum temperature of 70°C, so the full range of DGGE analysis can be performed in this unit. The unit contains all the features of the successful omniPAGE series and uses the same user-friendly gel casting system. OmniPAGE-DGGE uses all combs and accessories of omniPAGE Maxi, shown on page 24.

Technical Specifications

Plate dimensions, Gel dimensions, (W x L)	20 x 20cm 16 x 17.5cm
Unit dimensions	26 x 16 x 28cm (W x D x H)
Max. sample capacity	192 samples, 48 samples per gel
Buffer volume	Min 1200ml; Max 5600ml
Combs available : No. of samples Thicknesses	 1, 5, 10, 18MC, 24, 30, 36MC, 48 0.75, 1, 1.5, 2mm

Ordering Information

VS20-DGGE	**Denaturing Gradient Electrophoresis system, 20 x 20cm, including temperature controller, caster and gradient mixer**
VS20-DGGETC	**New DGGE Temperature Controller**

peristaltic pumps

Available in single, dual and tetrad formats these versatile peristaltic pumps are an ideal accessory for gradient gel formation with the VS20-DGGE. The 'easy load' head of the MU-D01 single peristaltic pump accommodates multiple tubes of different diameters offering the user enhanced flexibility in flow rate selection, while the MU-D02 single pump has the added benefit of a more powerful pump motor. The MFU-01 and MFU-02 dual and tetrad pumps are equipped with microprocessor technology for more accurate rpm control, and comprise 2 and 4 peristaltic pumps respectively that may be controlled individually. All 4 pumps are reversible and have a small footprint, occupying minimum space within the laboratory. Other applications include: filtration, sampling, chemical spraying, dispensing, transferring, feeding and filling.

Technical Specifications

	MU-D01	MU-D02	MFU-01	MFU-02
No. of Heads	1	1	2	4
Max. RPM:	300	600	100	100
Flow Rate, : ml/min	1.2-1140	0.3-2280	0.6-380	0.6-380
Dimensions: (HxLxW)	20x34x13	20x34x13	26.5x34x18	26.5x34x18
Weight, kg:	5.7	5.7	5.7	5.7

Ordering Information

MU-D01	**Single Peristaltic Pump**	**MFU-01**	**Dual Peristaltic Pump**
MU-D02	**Single Peristaltic Pump**	**MFU-02**	**Tetrad Peristaltic Pump**
MU-S13	Silicon tube I.D. 1/32", 25 ft	MU-S18	Silicon tube I.D. 3/8", 25 ft
MU-S14	Silicon tube I.D. 1/16", 25 ft	MU-S25	Silicon tube I.D. 3/16", 25 ft
MU-S16	Silicon tube I.D. 1/8", 25 ft	MU-S17	Silicon tube I.D. 1/4", 25 ft

large format vertical

Ideal for a variety of large format vertical gel applications, these units offer advanced features for enhancing gel resolution and ease of use, essential when handling gels of this size. Each unit contains ultra soft silicone seals for easy plate sealing and trouble free runs, even over extended run times.

Resolution is enhanced by using an aluminium heat sink plate, essential for even sample migration. Added convenience is provided by a removable lower buffer tank and upper buffer drainage tap.

Special buffer chambers allow either low buffer volumes to be used for economy or high buffer volumes to be used for extended runs.

A wide range of interchangeable comb and spacer options allows a large number of techniques to be easily accomplished including; DNA Sequencing, 2-D analysis, Micro-satellite analysis, DNA fingerprinting, Gel shift assays, Single-Strand Conformation Polymorphism (SSCP), Heteroduplex and Oligonucleotide analysis.

- Run up to 96 samples
- Enhanced gel heat homogenisation
- Variable low or high buffer volumes
- 20 x 50cm or 33 x 45cm formats

easily replaced buffer seals

removable lower buffer tray for easy cleaning

DNA Sequencing, 2-D analysis, Micro-satellite analysis, DNA fingerprinting, Gel shift assays, Single-Strand Conformation Polymorphism (SSCP), Heteroduplex and Oligonucleotide analysis

Typical Applications

Plate Racks

These sturdy racks are designed for safe drying and storage of glass plates. The small rack can hold up to 20x 2mm thick plates while the larger rack can accommodate up to 10x 5mm thick glass plates.

fan heater sensor kit

Ordering Information

CSQ20	**Large Format Vertical, 20cm wide, glass plates, 0.35mm spacers, 48 sample comb**		
CSQ20-NG	Glass plates, pk/2 Notched	CSQ20-S0.35	Spacer set 0.35mm
CSQ20-PG	Glass plates, pk/2 Plain	CSQ20-S1	Spacer set 1mm
CSQ20-S0.25	Spacer set 0.25mm	CSQ20-S1.5	Spacer set 1.5mm
CSQ33	**Large Format Vertical, 33cm wide, glass plates, 0.35mm spacers, 48 sample comb**		
CSQ33-NG	Glass plates, pk/2 Notched	CSQ33-S0.35	Spacer set 0.35mm
CSQ33-PG	Glass plates, pk/2 Plain	CSQ33-S1	Spacer set 1mm
CSQ33-S0.25	Spacer set 0.25mm	CSQ33-S1.5	Spacer set 1.5mm
CSL-FHS*	Fan heater sensor kit for large format vertical units CSQ20 and CSQ33	CSL-MGR	Mini Glass Plate Rack for 20x 2mm Plates
		CSL-LGR	Large Glass Plate Rack for 10x 5mm Plates

Technical Specifications

Plate dimensions (W x L)	CSQ20 20 x 50cm CSQ33 33 x 45cm
Max sample capacity	CSQ20 48 samples CSQ33 96 samples
Buffer volume	CSQ20 Min 500ml, Max 1000ml CSQ33 Min 800ml, Max 2000ml
Combs available	
No. of teeth	24, 48, 80, 96
Thicknesses	0.25, 0.35, 1, 1.5mm

Code	Description	Sample Volume per well
0.25mm		
CSQ20-0.25-24	Comb 24 sample, 0.25mm thick, Sharks tooth	7µl
CSQ20-0.25-48	Comb 48 sample, 0.25mm thick, Sharks tooth	3µl
CSQ33-0.25-48	Comb 48 sample, 0.25mm thick, Sharks tooth	7µl
CSQ33-0.25-96	Comb 96 sample, 0.25mm thick, Sharks tooth	3µl
0.35mm		
CSQ20-0.35-24	Comb 24 sample, 0.35mm thick, Sharks tooth	9µl
CSQ20-0.35-48	Comb 48 sample, 0.35mm thick, Sharks tooth	5µl
CSQ33-0.35-48	Comb 48 sample, 0.35mm thick, Sharks tooth	9µl
CSQ33-0.35-96	Comb 96 sample, 0.35mm thick, Sharks tooth	5µl

Code	Description	Sample Volume per well
1.0mm		
CSQ20-1-24	Comb 24 sample, 1mm thick, Square tooth	40µl
CSQ20-1-48	Comb 48 sample, 1mm thick, Square tooth	20µl
CSQ33-1-48	Comb 48 sample, 1mm thick, Square tooth	35µl
CSQ33-1-80	Comb 80 sample, 1mm thick, Square tooth	20µl
1.5mm		
CSQ20-1.5-24	Comb 24 sample, 1.5mm thick, Square tooth	60µl
CSQ20-1.5-48	Comb 48 sample, 1.5mm thick, Square tooth	30µl
CSQ33-1.5-48	Comb 48 sample, 1.5mm thick, Square tooth	50µl
CSQ33-1.5-80	Comb 80 sample, 1.5mm thick, Square tooth	30µl

The list above includes the most popular combs for these units. Many more comb options are available, please enquire.

* For 110 V AC, please add '-$' as a suffix to the appropriate code

gel dryers

- **Maxi dries up to twelve 10 x 10cm gels at a time**
- **Microprocessor control temperature and timer**
- **Optimal tight seal during the drying process**

With a drying area of 21 x 31 cm, the Midi gel dryer can dry six 10 x 10cm gels or a single larger gel. The Maxi Gel Dryer with a 35 x 45cm drying area can dry twelve 10 x 10cm mini gels simultaneously. The unit's microprocessor controls temperature and time, each parameter being displayed on its own LED display. The gels are heated from the base plate while the vacuum removes the moisture from below to dry the gel homogeneously. These dryers feature optimal sealing using a silicone rubber cover and supporting mask. When applying the vacuum, a groove that frames the drying surface provides an optimal tight seal during drying.

Technical Specifications

Temperature Increment	0.1°C	
Temperature Calibration	Yes	
Temp Uniformity	± 0.2°C	
Timer 1-999 mins		
Drying area	Midi Maxi	21 x 31cm 35 x 45cm
Operating Temp. Range	Ambient to 90°C	
Dimension WxLxH	Midi Maxi	30 x 36 x 8cm 44 x 50 x 8cm

Ordering Information

CSL-GDVH	**Midi Gel Dryer 220V, 21 x 31 cm**	**CSL-GDVH35**	**Maxi Gel Dryer 220V, 35 x 45 cm**
CSL-S2131	Replacement Silicon Rubber, Midi	CSL-S3545	Replacement Silicon Rubber, Maxi
CSL-M2131	Replacement Supporting Mask, Midi	CSL-M3545	Replacement Supporting Mask, Maxi
CSL-PUMP	Gelmaster Vacuum Pump		
CSL-TRAP	Replacement Trapping fluid for Gelmaster	CSL-FLUSH	Replacement flushing fluid for Gelmaster

For 110 V AC, please add '-$' as a suffix to the appropriate code

vacuum pumps

Technical Specifications

MZ 2C + 2 AK	
Unit Dimensions (W x L x H)	24.1 x 34.5 x 32.6cm
Vacuum Pump	Chemistry Diaphragm Pump
MZ 2C	
Number of Stages	2
Pumping Speed 50/60 Hz	1.9m3/h / 2.1 m3/h // 1.2cfm
Ultimate Vacuum (total)	9 mbar // 6.8 Torr
Ultimate Vacuum with Gas Ballast	15 mbar // 11 Torr
Inlet Connection (IN)	Hose nozzle NW 10mm
Outlet Connection (EX)	Hose nozzle NW 10mm
Weight	11.9kg
Pump Flow Rate	35 l/min

CSL-GD Pump

The Vacuubrand® MZ 2C + 2 AK is a quiet, low maintenance oil free vacuum pump, which generates the lowest pressure measurable reproducibly at room temperature for almost 100% efficient solvent recovery. Two round bottomed flasks collect and condense noxious gases released during gel drying, whereas inlet and outlet separators act in tandem with the diaphragm pump to facilitate controlled collection of vapours without risk of condensate entering and contaminating the pump. The pump also benefits from a compact design and construction from specially-selected chemically resistant materials, long-life easy-to-change diaphragms and valves, and gas ballast function.

Cleaver Scientific's new CSL-PUMP range is the ideal cost-effective alternative to the Vacuubrand gel pump. Each pump within the range is portable, low-noise and environmentally friendly. Also available is an optional vacuum regulator and filter cartridge. All CSL-PUMP models are recommended for use with the optional CSL-PUMPTRAP kit for vapour collection, and the vacuum regulator with filter cartridge insert that prevents pump contamination.

Technical Specifications

	CSL-PUMP300		CSL-PUMP400		CSL-PUMP410	
Voltage Frequency	110-120V 60Hz	220-240V 50Hz	110-120V 60Hz	220-240V 50Hz	110-120V 60Hz	220-240V 50Hz
Max. Power (W)	70	60	90	95	90	95
Max. Flow Rate	25 L/min	22 L/min	38 L/min	34 L/min	28 L/min	25 L/min
Max. Vacuum	600mmHg = 79kPa		600mmHg = 79kPa		740mmHg = 97kPa	
Max. Pressure	25PSI	25PSI	30PSI	30PSI	40PSI	40PSI
Net Weight	5.0kg		7.0kg		7.0kg	
Dimensions (LxWxH, mm)	210x112x220		280x112x210		270x144x190	

Ordering Information

CSL-GDPUMP	**Geldryer Pump – 732502 MZ 2C NT +2AK**	MU-VC-VR	Vacuum Regulator / Moisture Trap
CSL-PUMP300	**CSL 300 chemically resistant vacuum pump**	MU-VC-FC	Filter Cartridge
CSL-PUMP400	**CSL 400 chemically resistant vacuum pump**	CSL-PUMPTRAP	500ml glass bottle with 2 ports, plus S.S. connecting set and rubber tubing clamp
CSL-PUMP410	**CSL 410 chemically resistant vacuum pump**		

For 110 V AC, please add '-$' as a suffix to the appropriate code

buffers, stains, markers

Fluorescent Protein Stains

Cleaver Scientific is pleased to launch 3 new fluorescent stains for protein detection that are both reversible and more sensitive than many of the protein stains currently on the market. Available in blue, green and red colours as CSLblue, CSLgreen and CSLred, these protein stains can detect a minimum 1-3ng of protein per square millimetre of gel. Staining and destaining times are comparable to those required for standard Coomassie and SYPRO Ruby, while each gel may be visualised using a UV transilluminator and visible light filter. Each stain's metal chelate composition guarantees stability without loss of sensitivity for at least 1 year if stored within the refrigerator.

Technical Specifications

Code	CSLblue	CSLgreen	CSLred
Description	Blue colorimetric protein stain, 1L	Green fluorescent protein stain, 1L	Red fluorescent protein stain, 1L
Documentation	312nm UV with white light filter	365nm UV with 530nm filter	312nm UV with 590nm filter
Sensitivity	3-5ng/mm^2	1-3ng/mm^2	1-3ng/mm^2
Application	Protein gels	Protein gels and blots	Protein gels

Colorimetric Protein Stains

DyeHard is a new Coomassie Blue polymer stain whose sensitivity is comparable to silver stain. Its high protein-binding affinity and specificity allows detection of as little as 3ng protein with minimal background. Staining with DyeHard is faster and more convenient than standard Coomassie, since no destain is required. DyeHard is also cost-effective, odourless and easy to dispose within the laboratory.

PAGE buffers

Five buffers are available in powder sachets for a range of native and denaturing protein gel electrophoresis techniques. Each powder sachet, which is supplied as a 10-pack, may be reconstituted to make 1 litre of working solution. Running buffers are also supplied in 1 litre and 5 litre volumes as ready made 10x Tris-Glycine and 10x Tris-Glycine-SDS solutions.

Protein Markers

Stable for 2 years if kept at -20°C, Cleaver Scientific PINK Plus prestained protein ladder includes three conspicuous blue reference bands, 10, 40 and 90 kDa in size, for easy identification. Ranging from 10 to 175 kDa, these markers are premixed with loading dye for direct loading on gels. Cleaver Scientific BLUE Wide Range Protein Ladders are also available for the separation of proteins greater than 175kDa in size. Sharp green and red reference bands, 25 and 75kDa in size, enable easy identification of protein bands within the gel up to a maximum size of 245kDa. These markers are supplied in gel loading buffer, ready for immediate use.

Ordering Information

Fluorescent Protein Stain			
CSL-GREEN	Green Protein Stain, 1 litre	CSL-BLUE	Blue Protein Stain, 1 litre
CSL-RED	Red Protein Stain, 1 litre		
Protein Staining Solution			
300-692-500	DyeHard Protein Staining solution - 500ml	300-692-1000	DyeHard Protein Staining solution - 1000ml
Protein Markers			
CSL-PPL	CSL Pink Plus Prestained Protein Ladder (10-175 kDa)	CSL-BBL	Blue Wide Range Protein Ladder, (10-245 kDa)
Powdered Buffers			
CSL-TGSDSP	Powdered Tris-Glycine-SDS Running buffer - 10 Pouches (10 litres/pk)	CSL-MSDSP	Powdered MOPS-SDS buffer Running buffer - 10 Pouches (10 litres/pk)
CSL-TGP	Powdered Tris-Glycine Running buffer - 10 Pouches (10 litres/pk)	CSL-MESDSP	Powdered MES-SDS buffer Running buffer - 10 Pouches (10 litres/pk)
CSL-TTSDSP	Powdered Tris-TRICINE-SDS Running buffer - 10 Pouches (10 litres/pk)		
Buffers for Protein Electrophoresis			
TG10X1L Cleaver Buffer Tris-Glycine 10x 1 litre		TG-SDS10X1L Cleaver Buffer Tris-Glycine SDS 10x 1 litre	
TG10X5L Cleaver Buffer Tris-Glycine 10x 5 litre		TG-SDS10X5L Cleaver Buffer Tris-Glycine SDS 10x 5 litre	

4-gel vertical electrophoresis packages

Whether you require a package to match the market leader or one to address any budget or vertical electrophoresis technique, Cleaver Scientific now offers the ultimate range of Combination Packages that will meet your needs.

Run 4 gels in the tank while casting another 4 externally

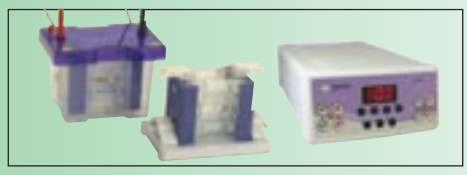
Ordering Information	
CVS10TETRAD1	**OmniPAGE TETRAD Mini-Protein Electrophoresis Package for 1mm self-cast gels , Includes: -**
	• CVS10DSYS-CU – 10x10cm mini-vertical unit with casting base and external casting stand, plus 2x 1mm 12-sample combs, 2x plain glass plates with 1mm spacer and 2x notched plates (Page 22)
	• VS10-12-1 – 2 additional 1mm 12-sample combs
	• VS10PGS1 – 1 pack of 2x plain glass plates with 1mm spacer
	• VS10NG - 1 pack of 2x notched glass plates
	• VS10NGS1 - 2 packs of 2x notched glass plates with 1mm spacer

For 0.75, 1.5 and 2mm versions use CVS10TETRAD0.75, CVS10TETRAD1.5 and CVS10TETRAD2 respectively

With interchangeable 4-blot module

Ordering Information	
CVS10TETRAD1CBS	**OmniPAGE TETRAD with interchangeable 4-blot module, includes: -**
	• CVS10TETRAD1 - OmniPAGE TETRAD Mini-Protein Electrophoresis Package for 1mm self-cast gels
	• VS10BI – 4-blot insert with 4 blotting cassettes and 8 fibre pads (Page 34)

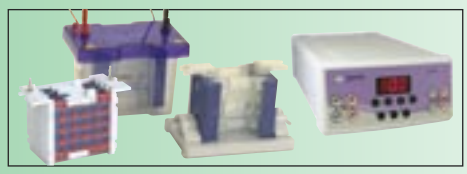
For 0.75, 1.5 and 2mm versions use CVS10TETRAD0.75CBS, CVS10TETRAD1.5CBS and CVS10TETRAD2CBS respectively



With standard Midi power supply option

Ordering Information	
CVS10TETRAD1-CS300	**OmniPAGE TETRAD with standard Midi power supply option, includes: -**
	• CVS10TETRAD1 - OmniPAGE TETRAD Mini-Protein Electrophoresis Package for 1mm self-cast gels
	• CS-300V - 300V, 700mA, 150W midi power supply (Page 39)

For 0.75, 1.5 and 2mm versions use CVS10TETRAD0.75-CS300, CVS10TETRAD1.5-CS300 and CVS10TETRAD2-CS300 respectively



With standard Midi power supply option and interchangeable 4-blot module

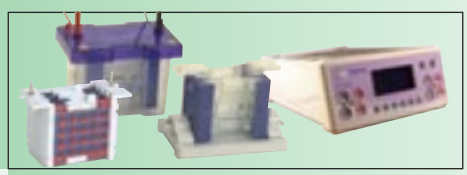
Ordering Information	
CVS10TETRAD1CBS-CS300	**OmniPAGE TETRAD with Midi power supply and interchangeable 4-blot module, includes: -**
	• CVS10TETRAD1CBS - OmniPAGE TETRAD Mini-Protein Electrophoresis Package for 1mm self-cast gels with blotting module
	• CS-300V - 300V, 700mA, 150W midi power supply (Page 39)

For 0.75, 1.5 and 2mm versions use CVS10TETRAD0.75CBS-CS300, CVS10TETRAD1.5CBS-CS300 and CVS10TETRAD2CBS-CS300 respectively

With high current Maxi power supply option

Ordering Information	
CVS10TETRAD1-CS3AMP	**OmniPAGE TETRAD with high current Maxi power supply option, includes: -**
	• CVS10TETRAD1 - OmniPAGE TETRAD Mini-Protein Electrophoresis Package for 1mm self-cast gels
	• CS-3AMP - 300V, 3000mA, 300W maxi power supply (Page 39)

For 0.75, 1.5 and 2mm versions use CVS10TETRAD0.75-CS3AMP, CVS10TETRAD1.5-CS3AMP and CVS10TETRAD2-CS3AMP respectively



With high current Maxi power supply option and interchangeable 4-blot module

Ordering Information	
CVS10TETRAD1CBS-CS3AMP	**OmniPAGE TETRAD with Maxi power supply and interchangeable 4-blot module, includes: -**
	• CVS10TETRAD1CBS - OmniPAGE TETRAD Mini-Protein Electrophoresis Package for 1mm self-cast gels with blotting module
	• CS-3AMP - 300V, 3000mA, 300W maxi power supply (Page 39)

For 0.75, 1.5 and 2mm versions please to remember to use the correct number. E.g. - CVS10TETRAD0.75CBS-CS3AMP for a 0.75mm version

standard vertical package deals

*Other Combination Packages are available; please enquire.

Pre cast gel mini vertical package

Ordering Information	
CVS10PRE-CS300	**Pre-cast gel mini-vertical electrophoresis package**
includes: -	• CVS10PRE - omniPAGE Mini-Protein system (Page 22)
	• CS-300V - 300V, 700mA, 150W midi power supply (Page 39)

Self cast and pre cast mini vertical package

Ordering Information	
CVS10DSYS-CS300	**Pre-cast and hand cast gel mini-vertical electrophoresis package**
includes: -	• CVS10DSYS - omniPAGE Mini-Protein system with casting base (Page 22)
	• CS-300V - 300V, 700mA, 150W midi power supply (Page 39)

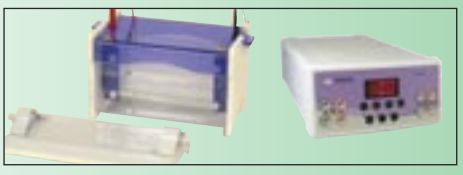
Mini vertical, power supply and blotting package

Ordering Information	
CVS10CBS-CS300	
includes: -	• CVS10CBS - omniPAGE Mini-Protein system with casting base and blotting insert (Page 34)
	• CS-300V - 300V, 700mA, 150W midi power supply (Page 39)

For packages with high current power supply, use codes CVS10PRE-CS3AMP, CVS10DSYS-CS3AMP, CVS10CBS-CS3AMP; combs and glass plates with bonded spacers may be changed at order

Wide mini vertical self cast package

Ordering Information	
VS10WDSYS-CS300	**Self-cast gel mini-wide vertical electrophoresis package**
includes: -	• VS10WDSYS - omniPAGE Mini Wide Protein system with casting base (Page 23)
	• CS-300V - 300V, 700mA, 150W midi power supply (Page 39)



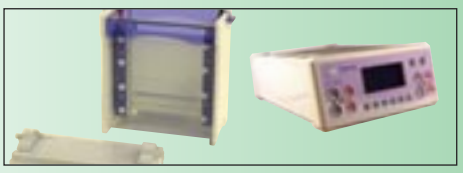
Wide mini vertical power supply and blotting package

Ordering Information	
VS10WCBS-CS300	
includes: -	• VS10WDSYS - omniPAGE Mini Wide Protein system with casting base and blotting insert
	• CS-300V - 300V, 700mA, 150W midi power supply (Page 39)

For packages with high current power supply, use codes VS10WDSYS-CS3AMP, VS10WCBS-CS3AMP; combs and glass plates with bonded spacers may be changed at order

Self cast maxi vertical and power supply package

Ordering Information	
VS20DSYS-CS500	**Self-cast gel maxi vertical electrophoresis package**
includes: -	• VS20DSYS - omniPAGE Maxi Protein system with casting base (Page 34)
	• CS-500V - 500V, 800mA, 300W maxi programmable power supply (Page 39)



Self cast maxi vertical, power supply and blotting package

Ordering Information	
VS20CBS-CS500	
includes: -	• VS20CBS - omniPAGE Maxi Protein system with casting base and blotting insert (Page 34)
	• CS-500V - 500V, 800mA, 300W maxi programmable power supply (Page 39)

For packages with high current power supply, use codes VS20DSYS-CS3AMP, VS20CBS-CS3AMP; combs and glass plates with bonded spacers may be changed at order

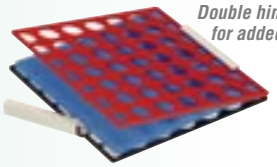
omniPAGE electroblotting

Mini, Mini Wide and Maxi Complete Electroblotting Systems

- Hinged cassettes
- Up to 4 blot capacity
- High intensity electrodes
- Rapid set-up cooling

The omniPAGE Electroblotting Systems include both modules required for Slab Gel Electrophoresis and Electroblotting and accessories, to provide a complete Mini, Mini Wide or Maxi gel casting, running and electroblotting system. The electroblotting module includes 3 inter-locking cassettes and 12 fibre pads in the Mini Wide and Maxi systems and 4 cassettes and 16 fibre pads for the Mini system.

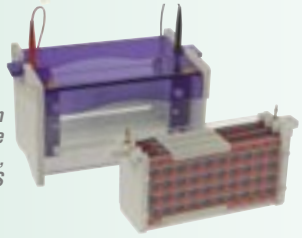
A high intensity current is generated by coiled platinum electrodes. These in conjunction with the advanced cooling features allow rapid electroblotting in as little as one hour.



Double hinged cassettes for added convenience

modules included in omniPAGE Mini Electroblotting System, CVS10CBS

modules included in omniPAGE Maxi Electroblotting System, VS20CBS

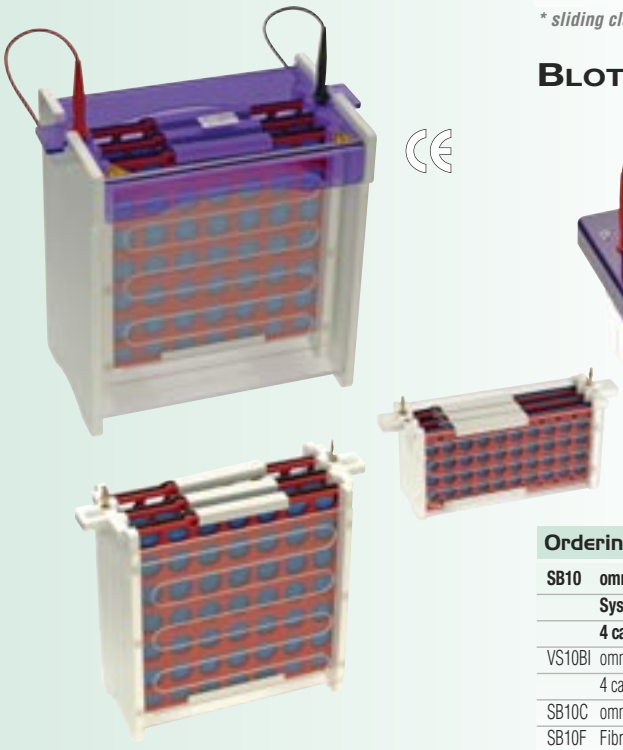


modules included in omniPAGE Mini Wide Electroblotting System, VS10WCBS

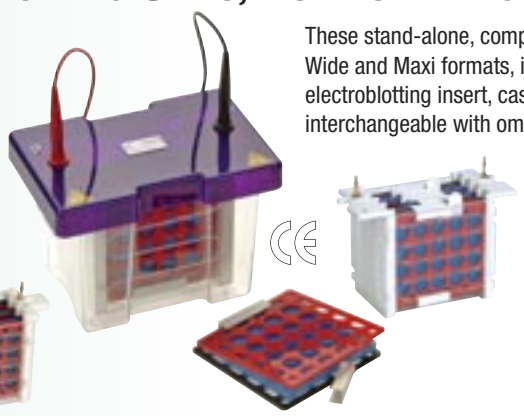
Ordering Information

CVS10CBS*	**Complete system for Mini Vertical (10 x 10cm) Electrophoresis & Blotting comprising:**
	1x omniPAGE Mini Vertical Unit which includes: 2x2mm thick notched glass plates, 2x2mm thick plain glass plates with 1mm thick bonded spacers, 1x dummy plate, 2x combs (1mm thick 12 samples), 1x casting base, silicone mat, cooling pack. plus: 1x Electroblotting Module which includes: internal electroblotting module, 4x compression cassettes for gel sizes up to 10x10cm and 16x fibre pads.
VS10WCBS	**Complete system for Mini Wide Vertical (20 x 10cm) Vertical Electrophoresis & Blotting comprising:**
	1x omniPAGE Mini Wide Vertical Unit which includes: 2x4mm thick notched glass plates, 2x4mm thick plain glass plates with 1mm thick bonded spacers, 1x dummy plate, 2x combs (1mm thick, 24 samples), 1x casting base, silicone mat, cooling pack plus: 1x Wide Electroblotting Module (20x10cm) which includes: internal electroblotting module, 3x compression cassettes for gel sizes up to 20x10cm and 12x fibre pads.
VS20CBS	**Complete system for Maxi Vertical (20 x 20cm) Electrophoresis & Blotting comprising:**
	1x omniPAGE Maxi Vertical Unit which includes: 2x4mm thick notched glass plates, 2x4mm thick plain glass plates with 1mm thick bonded spacers, 1x dummy plate, 2x combs (1mm thick 24 samples), 1x casting base, silicone mat, cooling pack. plus: 1x Electroblotting Module comprising: internal electroblotting module, 3x compression cassettes for gel sizes up to 20x20cm and 12x fibre pads.

** sliding clamps*



Blotting Units, inserts and accessories



These stand-alone, complete units for electroblotting, Mini, Mini Wide and Maxi formats, include omniPAGE tank and lid, electroblotting insert, cassettes and fibre pads. Units are interchangeable with omniPAGE slab and tube gel inserts. Hinged rigid cassettes allow rapid set up and convenience and ensure even contact between the gel and membrane is maintained.

- Ideal for Western blotting of proteins
- Open design, rigid cassettes for maximum current transfer

Ordering Information

SB10	**omniPAGE Blot Mini, 10 x 10cm System including tank and lid, 4 cassettes, 16 fibre pads, cooling pack**	**SB10W**	**omniPAGE Blot Mini Wide Unit, 20 x 10cm System including tank and lid, 3 cassettes, 12 fibre pads, cooling pack**	**SB20**	**omniPAGE Blot Maxi, 20 x 20cm System including tank and lid, 3 cassettes, 12 fibre pads, cooling pack**
VS10BI	omniPAGE Blot Mini Insert - includes 4 cassettes and 16 fibre pads	VS10WBI	omniPAGE Blot Mini Wide Insert - includes 3 cassettes and 12 fibre pads	VS20BI	omniPAGE Blot Maxi Insert - includes 3 cassettes and 12 fibre pads
SB10C	omniPAGE Blot Mini Cassette	SB10WC	omniPAGE Blot Mini Wide Cassette	SB20C	omniPAGE Blot Maxi Cassette
SB10F	Fibre pads - pk/8	SB10WF	Fibre pads - pk/6	SB20F	Fibre pads - pk/6

tank sub electroblotters

- **Ideal for wet electroblotting of proteins - Western blotting**
- **Up to five gel blot cassettes utilised at any one time**
- **Hinged cassettes for added convenience**
- **Accommodates gel thicknesses from 0.25 up to 3mm**

Designed primarily for wet electroblotting of proteins, TankSub Electroblotters offer a combination of increased capacity with economy saving features. Both units, Mini 10 x 10cm and Maxi 20 x 20cm, have increased capacity over standard systems with up to five gel blot cassettes utilised at any one time. This is especially useful in high throughput laboratories.

A uniform electric field is provided by a high intensity coiled electrode and ensures uniform transfer across the blot surface. The cassette's open architecture ensures the maximum blot area allows direct transfer of current. Its rigid construction ensures contact between the gel and membrane is retained throughout the blot and an even pressure is maintained. These units are compatible with magnetic stirrers to aid heat dispersal and prevent pH drifts in the buffer due to incomplete buffer mixing. Each system includes a cooling pack to further enhance transfer efficiency by removing excess heat. This also saves on buffer for added economy.

Double hinged cassettes for added convenience

Ordering Information

EBM10	**Electro Blot Mini, 10 x 10cm System for five cassettes, with tank and lid,**		
	5x cassettes, 12x fibre pads and cooling pack		
SB10C	Tank Blot Mini Cassette	SB10F	Fibre pads - pk/6
EBM20	**Electro Blot Maxi, 20 x 20cm System for five cassettes, with tank and lid,**		
	5x cassettes, 12x fibre pads and cooling pack		
SB20C	Tank Blot Maxi Cassette	SB20F	Fibre pads - pk/6

Technical Specifications

Unit dimensions (W x D x H)	Mini	19 x 13 x 19cm
	Maxi	24 x 16 x 26cm
Max. sample, capacity	Mini	5 Blots, 10 x 10cm
	Maxi	5 Blots, 20 x 20cm 20 Blots, 10 x 10cm
Buffer volume	Mini:	Min 1000ml; Max 1500ml
	Maxi:	Min 4300ml; Max 6000ml

semi dry blotters

These Semi Dry Blotters offer rapid transfer times for DNA, RNA and protein blotting – typically 15 to 30 minutes. All units can be used for all types of blotting: western, southern and northern via uncomplicated buffer and set up procedures and are compatible with gel thicknesses from 0.25 up to 10mm without the need for additional equipment. Each unit is compatible with their respective omniPAGE vertical gel system.

Semi Dry Blotting has the added benefit of economic transfers due to very low buffer volumes – typically only a few millilitres of buffer are required per transfer. These Semi-Dry Blotters utilise a screw down lid, which secures the blot sandwich and allows complete control of pressure ensuring even transfer. The electrodes, comprising platinum coated anode and stainless steel cathode, will exhibit practically no corrosion and so provide many years of trouble free use.

Uniform heat dispersion across the blot sandwich ensures stable transfer times and no heat induced sample loss or transfer distortions. Being translucent, it allows viewing of the blot sandwich to ensure correct positioning and transfer is occurring correctly. Electrode plates are fully separated to prevent arching or damage.

- **Rapid transfer times**
- **Western, Southern and Northern Blots**
- **Economic Transfers due to very low buffer volumes**
- **Screw down lid – gels from 0.25 up to 10mm thick can be blotted**
- **Uniform heat dispersion**
- **Long life electrodes**

Ordering Information

SD10	**Semi Dry Mini, 10 x 10cm System**	**SD20**	**Semi Dry Midi, 20 x 20cm System**
SD33	**Semi Dry Maxi Plus, 33 x 45cm System**	**SD50**	**Semi Dry Maxi Long, 20 x 50cm System**

Technical Specifications

Unit dimensions (W x L x H)	Mini	16 x 16 x 7cm
	Maxi	26 x 26 x 7cm
	Maxi Plus	33 x 45 x 7cm
	Maxi Long	26 x 56 x 7cm
Max. sample, capacity	Mini	1 Blot, 10 x 10cm
	Maxi	1 Blot, 20 x 20cm 4 Blots, 10 x 10cm
	Maxi Plus	1 Blot, 35 x 45cm
	Maxi Long	1 Blot, 20 x 50cm
Buffer volume	Mini	5ml
	Maxi	20ml
	Maxi Plus	75ml
	Maxi Long	50ml

Technical Specifications

Unit dimensions W x D x H)	Mini	30 x 30 x 10cm
	Maxi	42 x 30 x 10cm

Capillary Blotters

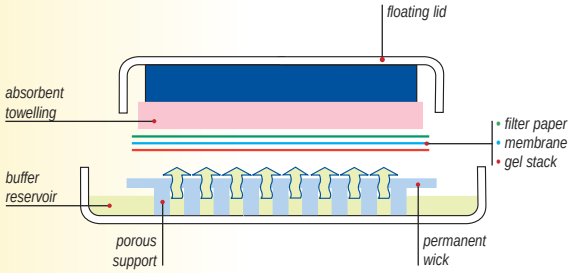
- **Permanent wick with optimised capillary action**
- **Efficient transfer of high and low M.Wt. fragments**
- **Fast, easy set-up**
- **DNA transfer in 2 hours or less; RNA transfer in 3 hours or less**
- **Floating lid ensures even pressure without gel compression**

These Capillary Blotting systems offer a contained unit for southern and northern blotting. These units incorporate optimised permanent wicks which eliminate the requirement for overlapping wicks, offering greater consistency.

The porous polyethylene platform draws up transfer buffer faster than traditional systems allowing for faster transfer times.

Side by side transfer of multiple gels can be performed in a single set up.

Available in 15 x 26cm and 28 x 26cm formats.



Principle:
Through capillary action, the buffer travels from the reservoir to the absorbent towelling via the porous supports, permanent wick, gel and membrane. This action optimises the transfer of low and high Molecular Weight DNA/RNA from gel to membrane without mechanical damage to even the thinnest of gels.

Ordering Information

CSL-CAPL	**Capillary Blotting Unit (28cm x 26cm)**
CSL-CAPS	**Capillary Blotting Unit (15cm x 26cm)**

Dot and Slot Blotters

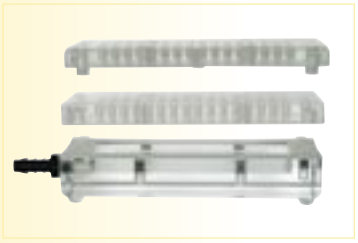
- **Low cost**
- **Simple construction**
- **Easy assembly**
- **Four sample configurations**
- **Alpha-numeric sample identification**

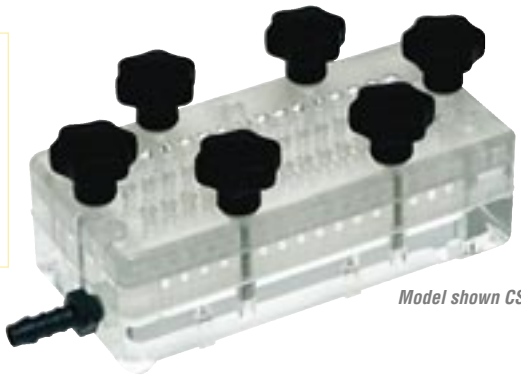
Four different sample number size and style of Hybridisation Manifold are offered:- two types of dot blotter and two types of slot blotter.

Typical applications include clone screening with DNA / RNA probes in Southern/Northern blots and immunological screening with antibodies in western blots.

The units incorporate precision lapped surfaces to ensure uniform blotting membrane contact and a leak proof gasket. These prevent lateral transfer of samples – smudging – by ensuring that a complete vacuum is formed. Six thumbscrews ensure even and tight sealing for fast sample suck down.

Dot blotters are available in 48 and 96 well versions and slot blotters in 24 and 48 well.





Model shown CSL-D48

Model	CSL-D48	CSL-D96	CSL-S24	CSL-S48
Configuration	3 x 16	8 x 12	2 x 12	3 x 16
Size of well 12mm deep	6mm diameter 12mm deep	6mm diameter 12mm deep	6 x 0.5mm 12mm deep	6 x 0.5mm
Vacuum required	----- 600mg Hg 0.8 BAR with cold trap -----			
Unit dimensions	60 x 95 x 100cm	60 x 105 x 140cm	60 x 74 x 83cm	60 x 95 x 100cm
Membranes size required	12.1 x 4.4cm	11 x 7.4cm	12.1 x 4.4cm	12.1 x 4.4cm

Ordering Information

CSL-D48	**48-well Dot Blot Manifold, 3 x 16 array**	**CSL-S24**	**24-well Slot Blot Manifold, 2 x 12 array**
CSL-D96	**96-well Dot Blot Manifold, 8 x 12 array**	**CSL-S48**	**48-well Slot Blot Manifold, 3 x 16 array**

membranes, buffers, stains

Cleaver Scientific now offers a range of membranes, buffers and stains for protein and nucleic acid blotting applications.

Available in powder sachet form, Towbin buffer Tris/Glycine base may be reconstituted to form 1 litre of 1x working solution for wet and semi-dry transfer techniques. Simply mix 800ml of 1x working solution with 200ml methanol for complete 1x Towbin buffer.

Cleaver Scientific western transfer buffer is available as a 25x concentrate. Mix with 1200ml distilled water to make 1x working solution.

Ordering Information	
CSL-TTGP	Powdered Towbin Buffer, Tris-Glycine base - 10 pouches/pk (10 litres/pk)
CSL-WTB	Western 25x Transfer Buffer (50 ml)

Available as 1 litre ready to use solutions, Cleaver Scientific semi-dry blotting solutions facilitate efficient transfer of proteins to nitrocellulose and PVDF membranes.

Ordering Information	
CSL-SDWB	Semi-dry Western blot buffer (1000ml)
CSL-SDWBPVDF	Semi-dry Western blot buffer for PVDF (1000ml)

Ponceau S staining solution is reusable and available in a convenient 500ml volume for membrane staining and early protein detection following transfer before western blotting. Ponceau S may also be supplied in 10 powder sachets for long-term storage.

Ordering Information	
CSL-PSS	Ponceau S staining solution (500ml)
CSL-PSB	Ponceau S staining solution powder – 10 pouches/pk (5 litres/pk)

Three different types of membrane are available for protein and nucleic acid transfer techniques. Supplied either as 0.3x30m (WxL) roll or in precut sizes of 8x6cm and 8x8cm, these membranes are the ideal size for the transfer of proteins and nucleic acids from polyacrylamide and agarose gels.

Ordering Information			
CSL-PCMN88	10 x Pre-cut membranes, Nitrocellulose 8 x 8cm	CSL-PCMP88	10 x Pre-cut membranes, PVDF 8 x 8cm
CSL-PCMN86	10 x Pre-cut membranes, Nitrocellulose 8 x 6cm	CSL-PCMP86	10 x Pre-cut membranes, PVDF 8 x 6cm
CSL-PRMNY88	10 x Pre-cut membranes, Nylon 8 x 8cm	CSL-RNC45	Nitrocellulose roll, pore size 0.45µm
		CSL-RNC2	Nitrocellulose roll, pore size 0.20µm
CSL-PCMNY86	10 x Pre-cut membranes, Nylon 8 x 6cm	CSL-RNY45	Nylon roll, pore size 0.45µm
		CSL-RNY2	Nylon roll, pore size 0.20µm

Consort pH meters

Ideally suited to the measurement of electrophoresis buffer pH, Consort pH meters may also be used to measure conductivity, total dissolved salt, salinity and temperature. Each meter may be supplied on its own, with or without the electrode, calibration buffers and standards. All meters comprise a BNC connection for connection to most electrodes commonly available on the market.

Ordering Information	
C860	Meter only (without electrodes) + mains adaptor
C860P	Meter kit for pH: C860 + pH/ATC electrode SP10T + 2x50 ml buffers (pH 4 and 7) + 50 ml electrolyte (3M KCl)
C860T	Meter kit complete: C860 + pH electrode SP10B + epoxy conductivity electrode SK10B + ATC probe ST10N + 2x50 ml buffers (pH 4 and 7) + 50 ml electrolyte (3M KCl) + 50 ml conductivity standard (0.01M KCl)
SH300	Flexible electrode holder (optional)
C561	Meter only (without electrodes) + 4 NiMH batteries + mains adaptor
C561P	Meter kit for pH: C561 + pH/ATC electrode SP10T + 2x50 ml buffers (pH 4 and 7) + 50 ml electrolyte (3M KCl) + carrying case
C561T	Meter kit complete: C561 + pH electrode SP10B + conductivity electrode SK10B + ATC probe ST10N + 2x50 ml buffers (pH 4 and 7) + 50 ml electrolyte (3M KCl) + 50 ml conductivity standard (0.01M KCl) + carrying case
A4049	Car adaptor, 12 V (optional)

For 110 V AC, please add '-$' as a suffix to the appropriate code

Consort power supplies

- **Constant voltage, current or power**
- **Automatic crossover**
- **Overload Protection**
- **Short Circuit Protection**

All Consort Maxi Series (EV200) power supplies have four output terminals for up to four simultaneous runs. Powerful microprocessor control allows complex programming, while manual mode permits the setting of voltage, current, power and time for routine electrophoretic runs. The parameters may also be changed temporarily without interrupting the run.

Programming – up to 9 different programs, each with 9 steps, can be stored in the non-volatile memory for future recall.

Timer – can be set to automatically terminate the run and sound an alarm when the allocated time or volt hours has elapsed.

Automatic cross-over – each model has constant voltage, constant current and constant power capabilities with automatic cross-over while showing which parameter is kept constant.

Automatic recovery after mains failure – after restoration of power, the instrument will automatically continue the run for the remaining time.

Data Transfer – optional data acquisition/control software for PC is available to visualise and examine the stored run details, store and program the methods, add notes to the run, identify the unit, copy or delete programs in the unit's memory.

Safety precautions – the AC line is automatically disconnected from the high voltage transformer when a ground leakage path is detected protecting the user from potential shock. Other safety features include protection against any overload including accidental short circuit of the output and voltage increases smoothly.

EV243 Mini series

EV200 Maxi series

CONSORT MINI EV222 AND EV243

The Consort Mini EV222 and EV243 power supplies are ideally suited for use with small electrophoresis units. Both power supplies, which occupy little space within the laboratory, are portable and have several other features:-

Manual Set-up – voltage, current and power settings can be adjusted during the run.

Voltage ramp – this allows a linear voltage gradient for any step to be programmed at any step.

Automatic recovery after power failure.

3 output terminals.

The EV243 also benefits from 9 different programs, each with 9 steps; data-logging and data transfer to a PC, and PC remote control.

Technical Specifications

maxi

Timer	0 - 99.59 hours
Programs	9 of 9 sets each
Outputs	4 in parallel, 4mm sockets
Resolution	1V, 1mA, 1W
Dimensions	31 x 26 x 15cm (W x L x H)
Weight	10kg max.

Technical Specifications

mini

Timer	0 - 99.59 hours
Programs	EV222: 1 set; EV243: 9 of 9 sets
Outputs	3 in parallel, 4mm sockets
Resolution	1V, 1mA, 1W
Dimensions	24 x 20 x 13cm (W x L x H)
Weight	3kg max.

Ordering Information

EV222	**Consort Power Supply**	**200 V**	**200 mA**	**20 watts**	**EV261**	**Consort Power Supply**	**600 V**	**1000 mA**	**300 watts**
EV243	**Consort Power Supply**	**400 V**	**300 mA**	**50 watts**	**EV215**	**Consort Power Supply**	**1200 V**	**500 mA**	**300 watts**
EV231	**Consort Power Supply**	**300 V**	**1000 mA**	**150 watts**	**EV232**	**Consort Power Supply**	**3000 V**	**150 mA**	**150 watts**
EV202	**Consort Power Supply**	**300 V**	**2000 mA**	**300 watts**	**EV233**	**Consort Power Supply**	**3000 V**	**300 mA**	**300 watts**
EV265	**Consort Power Supply**	**600 V**	**500 mA**	**150 watts**	**EV262**	**Consort Power Supply**	**6000 V**	**150 mA**	**300 watts**

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Product Selector

Application	CSL Units	Power Supply
Horizontal	miniRapide, multiSUB mini, multiSUB midi, multiSUB choice, COMET Assay, multiSUB maxi, multiSUB screen, Cellulose Acetate System	CS-250V; CS-300V; EV243
Vertical and Modular	omniPAGE Mini Vertical omniPAGE Maxi and VS30 Vertical and Maxi and VS30 Modular Blotters omniPAGE Mini and Maxi 2-D and Complete Modular Systems	CS-250V; CS-300V; EV243 EV261; EV215 EV215
Blotters	Mini TankBlot, Modular Blot and Mini Semi Dry Blot Maxi TankBlot, Modular Blot and Maxi Semi Dry Blot	CS-250V; CS-300V; EV202 CS-3AMP; EV202; EV261
Large Format Verticals	20cm and 35cm wide Large Format Verticals, IEF Flatbed System	EV232; EV233; EV262

omniPAC power supplies

omniPAC MAXI Programmable Power Supplies are high performance, easy to operate instruments, which can handle virtually any application from medium voltage electrophoresis to high current blotting. Offering both graphic and text displays, omniPAC MAXis are completely programmable with self prompting menus and multiple operation modes.

Versatile: two models are available offering maximum output capability up to 500V and from 400mA to 3A and 300 watts. These units are suitable for running multiple SDS gels, blotting and large submarine gels.

Fully Programmable: system parameter entry is via the membrane keypad and the start key. They can be programmed to recall and run constant or multi-step electrophoresis in a variety of operational modes :

1. Constant operation with timer – program constant voltage, current or wattage with timer to eliminate the possibility of over running samples in gels.
2. Memory mode – Store 30 files to recall and re-run favourite multi step programmes.

Display: omniPAC MAXI power supplies have large dot matrix display screens allowing both graphic and text visualisation.

Set parameters will be displayed continuously compared with actual run conditions. This can be viewed by touching 'select display' key.

Safety: omniPAC MAXI models meet all relevant safety standards to protect both the operator and the instrument. The alarm will sound in event of ground leakage, no load or overload.

omniPAC MAXI

- High performance, easy to operate
- Graphic and text displays
- Completely programmable
- Programme constant voltage and current
- Memory mode – Stores 16 files to recall and re-run
- Safety – Comply to all relevant safety standards

Technical Specifications

MAXI	CS-500V	CS-3AMP
Max. Voltage	500V	300V
Max. Current	800mA	3A
Max. Watt	300W	300W
Output Type	Constant Voltages ; Constant Current ; or Constant Watt	
Program Storage	---- 30 programmed files ----	
Program Multi-Step	---- Up to 6 steps ----	
Timer	---- 1-999 mins in programmable mode; ---- ---- 1-9999 mins constant mode ----	
Display	-- 28 x 64 dot matrix display screen --	
Safety	---- No load ; Leakage and Overload Detection ----	
Dimensions	19 (w) x 30.5 (l) x 9.5 (h) cm	
Operation Voltages	110 / 220V	

Midi CS-250V and CS-300V

omniPAC MIDI

- Run in constant voltage and current
- Alarm can be set at the end of program
- Auto cut-off function
- Current up to 700mA

These inexpensive, compact omniPAC MIDi power supplies are ideal for routine horizontal and mini vertical electrophoresis. Microprocessor control allows setting in constant voltage and constant current. Four gel chambers can be connected at any one time. An optional timer can be set to end the run and sound an alarm. Safety features include shrouded plugs and sockets, no load detection and ground leakage detection.

Technical Specifications

MIDI	CS-250V	CS-300V
Max. Voltage	250V	300V
Max. Current	700mA	700mA
Max. Watt	150W	150W
Output Type	Constant Voltage or Current	
Timer	1-999 mins	1-999 mins
Dimension	19 (w) x 30.5 (l) x 9.5 (h) cm	
Operation Voltages	110 / 220V	

Mini150V and Mini300V

omniPAC MINI

- Compact Size
- Safety Design : Shrouded plug and socket; no load detection
- Constant Voltage
- Low Cost and Economical

omniPAC MINI power supplies have been developed specifically for horizontal gel electrophoresis systems. These ultra compact power units with dual outlets, are recognised as amongst the most compact and inexpensive power supplies currently available and are designed and constructed to the most rigorous safety standards.

Technical Specifications

MINI	Mini150V	Mini300V
Max. Voltage	150V	300V
Max. Current	600mA	400mA
Max. Watt	60W	60W
Output Type	25; 50; 75; 100 125 & 150V	50; 100; 150 200; 250 & 300V
Safety	---- No load Detection ----	
Dimension	11.5 (w) x 15 (l) x 8 (h) cm	
Operation Voltage	110 / 220V	

Ordering Information

Mini150V	**omniPAC Power Supply**	**150V**	**600mA**	**60W**	CSL-CAB	Replacement Cables, pk/2
Mini300V	**omniPAC Power Supply**	**300V**	**400mA**	**60W**	CSL-CAB2	Replacement CSQ unit cables, pk/2
CS-250V	**omniPAC Power Supply**	**250V**	**700mA**	**150W**	CSL-4-4	Power supply adapters, 4mm to 4mm
CS-300V	**omniPAC Power Supply**	**300V**	**700mA**	**150W**	CSL-4-2	Power supply adapters, 4mm to 2mm
CS-500V	**omniPAC Power Supply**	**500V**	**800mA**	**300W**	CSL-2-4	Power supply adapters, 2mm to 4mm
CS-3AMP	**omniPAC Power Supply**	**300V**	**3000mA**	**300W**		

gel documentation

MicroDoc

- 14.7 Megapixel digital CCD camera
- Image visualised within a large 8" TFT colour monitor
- Light weight compact hood with easy access door and built-in inner lights
- Safety switches disconnect the UV source when the easy access door is opened
- Computer-free operation
- Available on its own with camera and darkroom, or as a complete gel documentation system with transilluminator, either with or without software
- Transilluminators supplied in single and dual wavelength formats – see page 42

Recently upgraded with a new 14.7 megapixel digital CCD camera to guarantee superb resolution, the microDOC is the researcher's choice for a simple ultra-compact gel documentation system that meets constraints in both budget and space within the laboratory. A large 8" TFT screen enables images, including agarose and fluorescent gels, colorimetric gels, autoradiography film and blotting membrane, to be captured in colour, clearly and easily. The system is computer-free and supplied with a 2MB storage card and 58mm ethidium bromide filter as standard, while an optional SYBR filter is also available. Files are saved onto the 2MB storage card in RAW, TIFF-RGB and JPEG formats and may be transferred to computer for analysis with the highly recommended TotalLab™ 1D software.

Printer

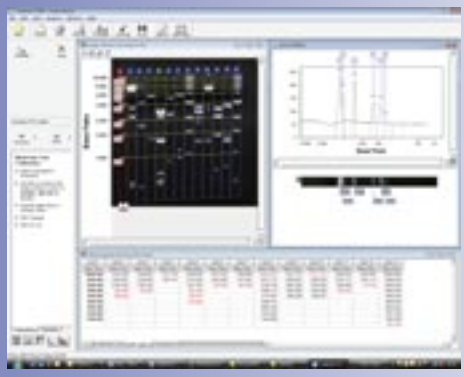
The Mitsubishi P93 is a high speed, high resolution thermal printer that is perfectly suited to printing images directly from the microDOC. Connected to the microDOC by a BNC cable, the Mitsubishi P93 prints 325dpi images, up to 133 x 99mm in size. Thermal printer paper is also available.

microDOC BASIC

The microDOC BASIC is a simple low-cost system comprising a lift-off dark room hood and 14.7 megapixel digital camera, through which the gel is viewed directly. This system can be supplied with optional TotalLab 1D Analysis Software and any one of the 21x21cm transilluminators listed on page 42.

TotalLab™ 1D software

TotalLab™ 1D software is supplied only as part of a complete package with each of the microDOC and transilluminator options. Its main functions include: lane creation, background subtraction, band detection, profile deconvolution, and molecular size, pI and quantity calibration. More sophisticated TotalLab™ Quant and Phoretix standalone software options are available for 1D applications that require band matching, array, colony counting and image ToolBox functionalities.



Technical Specifications

Camera:

Type	5x optical / 4x digital zoom camera-
Effective Pixels	14.7 megapixels
CCD	1/1.7" high-density CCD
Maximum Aperture	f/2.8 (W) ~ f/4.5 (T)
Shutter Speed	15 ~ 1/4000s
Filters	+3 Close up and EtBr; optional SYBR green
Storage Media	2MB memory card
Computer Interface	USB 2.0 Hi Speed (mini-B jack)
Video Out	NTSC/PAL

Darkroom:

Multi-power Source	For camera, inner white LED,
Capture	Manual-save in BMP format
Inner White Light	2x3W LED
Safety Device	Safety door switch
Weight & Dimensions	6.1kg; 290x220x320mm
Voltage Rating	110~220V

Screen:

Type	8" TFT
Resolution	600x800 Pixels
Brightness	350 cd/mm^2
Constant Ratio	300 : 1
Display Mode	NTSC / PAL / SECAM mode auto switching

Ordering Information

Gel Documentation Systems	System only	Including TotalLab 1D Analysis Software
Compact Gel documentation system	CSL-MICRODOC	CSL-MICRODOC1D
microDOC System with UV Transilluminator (UVT312)	CSL-MDOCUV312	CSL-MDOCUV3121D
microDOC System with UV Transilluminator (UVT254)	CSL-MDOCUV254	CSL-MDOCUV2541D
microDOC System with UV Transilluminator (UVT365)	CSL-MDOCUV365	CSL-MDOCUV3651D
microDOC System with UV Transilluminator (UVT254/312)	CSL-MDOCUV254/312	CSL-MDOCUV254/3121D
microDOC System with UV Transilluminator (UVT254/365)	CSL-MDOCUV254/365	CSL-MDOCUV254/3651D
microDOC Basic System with lift-off dark room hood and camera only	CSL-MDOCBASIC	CSL-MDOCBASIC1D
Software		
Base package*: 1D image analysis plus colony counting and array analysis	TotalLab Quant	
Base package*: 1D image analysis with band pattern matching, plus colony counting and array analysis	Phoretix 1D	
The Phoretix 1D Pro software is used to perform sophisticated 1D gel analysis.	Phoretix 1D Pro	

Accessories			
Mitsubishi Thermal Printer for use with Microdoc - 110 - 240V	CSL-PRINT	Replacement printer paper	CSL-PRTPAP
Microdoc ethidium bromide filter	CSL-MDOCEB	UV to white light conversion screen for transilluminator	CSL-UVSCRN
Microdoc SYBR filter	CSL-MDOCSBRG	White light box for Micro doc	CSL-MDOCWLB

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gel documentation

UVIdoc HD2

- **Simple touch button control via front LCD panel**
- **Ideal for routine gel documentation and critical quantitative applications**
- **Extreme sensitivity even for the faintest fluorescent gels**
- **Saturation monitoring of live images to ensure they remain fully quantifiable**
- **Complimentary image capture and analysis software**

The UVIdoc HD2 is a standalone gel documentation system. A 1.4 megapixel camera, with 12-bit pixel depth for increased dynamic range, produces high quality images for publication and quantification. An easy-share network connection allows images generated within the laboratory to be downloaded remotely within the office with minimal risk of spreading ethidium bromide contamination, although four USB ports are available for the simultaneous connection of a USB flash drive, printer and mouse if required. Standard features include saturation monitoring to ensure images remain fully quantifiable; an 8.4 inch TFT LCD panel; an epoxy-painted stainless steel cabinet with built-in roll-out 8W transilluminator; plus a 3-position filter wheel and white light epi-illumination. Also included as standard is UVIdoc 1D software with its comprehensive gel imaging, analysis and annotation tools.

UVIPURE Technology

Each UVIdoc HD2 may be supplied either with a standard 312nm transilluminator or a transilluminator with cutting-edge UVIPURE technology. UVIPURE transilluminators contain special filter glass that eliminates background visible light wavelengths to maximise contrast and signal-to-noise for even the faintest of fluorescent signals, allowing them to be seen by the naked eye. This allows broad transmission camera filters to be used within the UVIdoc system, ensuring that maximum transmission of the fluorescent signal is always achieved.

UVIband

Available separately, UVIband 1D software is designed for powerful and accurate analysis of 1D gels to produce molecular weight and quantitative data. The software is user-friendly and benefits from a host of features that include: automatic lane detection; the ability to add new standards and create standard libraries; background subtraction; 2D and 3D area/lane profiling; free form optical density calibration; automatic calculation of band and array concentrations. UVIband software is ideal for the following applications: -

- Gels
- Dot & Slot Blots
- Microplates
- Western Blots
- Arrays
- Colony Counting

UVIBANDMAP

UVIbandmap analysis and database software offers all of the 1D analysis functions of UVIband, but also benefits from the key features of UVImap software function, which include: database management; band data pattern matching and dendrogram generation; plus lane identification and multiprobe analysis.

Technical Specifications

Camera		Darkroom		Transilluminator	
Type:	Sony Chip CCD Camera with variable shutter speed	Type:	HD2 darkroom	Configuration:	• Built-in roll-out;
CCD:	ICX205 Sony CCD camera sensor	Construction:	Stainless steel; epoxy coated		• 8W standard or 8W UVI-PURE;
Effective Pixels:	1.4 megapixel; 1360 (H) x 1024 (V)	Filters:	3-position filter wheel; EtBr filter		• Single or dual wavelength;
Bit Depth:	12-bit imaging (4096 grey levels)	Display:	8" TFT LCD; 800x600 pixel resolution		• 20x20cm filter
				Software	
Dynamic range:	4OD; 6x optical zoom	Other features:		Configuration:	Free multi-license Functions:
Cooling:	Camera passive aluminum cooling enhancer	• Auto-exposure and saturation control;			• Image enhancement
Sensitivity:	To within 0.1ng in a DNA stained gel	• Built-in internal memory - stores up to 50 images			• MW calculation
		• 4x USB ports; LAN connection			• Band quantification
		• Inner white light LED - white light indicator			• Distance calculation (Rf)
		• Smart control panel with UV security switch			• Colony counting

Ordering Information

1641 1102 1	UVIdoc-HD2 /20M, 230V EU. Includes Software & USB Control unit, Camera,	1440 1001 1	UVIband Software
	Manual Zoom, Ethidium Filter, UVIdoc-HD2 Darkroom with 8" TFT LCD screen,	1440 4001 1	UVIbandmap Software
	and 8W/312nm Transilluminator with 20x20cm filter	CSL-PRINTUSB	Mitsubishi Thermal Printer for USB input - 110 - 240V
1641 1103 1	UVIdoc-HD2 /20MX, 230V EU. Includes Software & USB Control unit, Camera,	CSL-PRTPAP	Replacement printer paper
	Manual Zoom, Ethidium Filter, UVIdoc-HD2 Darkroom with 8" TFT LCD screen,	CSL-UVSCRN	UV to white light conversion screen for transilluminator
	and 8W/312nm UVI-PURE 20MX Transilluminator with 20x20cm filter		

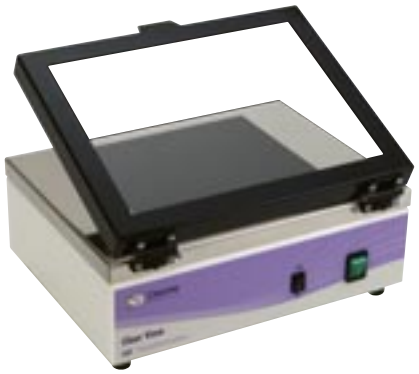
Other systems available including computer-based and systems for chemiluminescence and fluorescence

uv transilluminators

- **Three wavelength options: 254/312/365 nm – two Dual wavelength models**
- **Long life filter**
- **High efficiency reflector**
- **Hi/Lo intensity switch**
- **Fast start up**

Available in single and dual wavelength formats, our transilluminators are supplied either as standalone units or with the microDOC, as part of a fully integrated gel documentation system. With a large surface area, each transilluminator serves as the perfect workstation for viewing and working with fluorescently-stained protein and nucleic acid gels.

Standard features include a high/low intensity safety switch and an efficient starter that allows each of the six 8-Watt UV tubes to energise quickly without flickering, while special filter glass minimises unwanted background light. All of these features maximise contrast and sensitivity, allowing even the faintest fluorescent gels to be viewed. Two dual wavelength models offer added flexibility and convenience.



Technical Specifications

Filter size	20 x 20 cm
Light source:	8W x 6 tubes
UV resistant plastic cover:	33 x 25cm (WxD)
Unit Dimensions WxLxH	34 x 29.5 x 10cm

Ordering Information

CSLUVTS254	UV Transilluminator, small, 21 x 21 cm, 254 nm	CSLUVTL254	UV Transilluminator, large, 21 x 26 cm, 254 nm	**Replacement Parts and Accessories**	
CSLUVTS312	UV Transilluminator, small, 21 x 21 cm, 312 nm	CSLUVTL312	UV Transilluminator, large, 21 x 26 cm, 312 nm	CSL-Txxx	8W UV bulb (xxx = 254nm, 312nm or 365nm)
CSLUVTS365	UV Transilluminator, small, 21 x 21 cm, 365 nm	CSLUVTL365	UV Transilluminator, large, 21 x 26 cm, 365 nm	CSL-ST4/20	Starter for 4/20W UV Tubes
CSLUVTSDUO	UV Transilluminator, small, 21 x 21 cm, 254/365 nm	CSLUVTLDUO	UV Transilluminator, small, 21 x 26 cm, 254/365 nm	CSL-UVPS22	UV Transparent Cutting Platform 22 x22cm
CSLUVTSDUO312	UV Transilluminator, small, 21 x 21 cm, 254/312 nm	CSLUVTLDUO312	UV Transilluminator, small, 21 x 26 cm, 254/312 nm	CSL-UVPS27	UV Transparent Cutting Platform 22 x27cm

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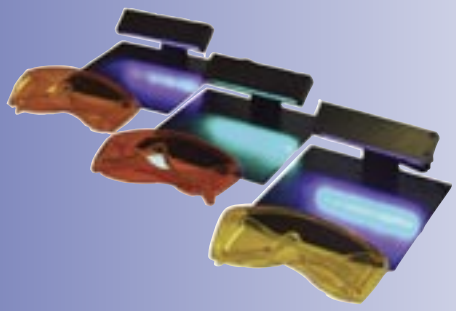
- **Safe, UV-free illumination of gels**
- **Increased sensitivity and contrast of DNA bands**
- **Enhanced cloning efficiency of DNA viewed with SafeCloner compared to DNA eluted from UV-irradiated gels**



Safecloner

SafeCloner is a new tool for safe UV-free visualisation of DNA gels stained with ethidium bromide, SYBR Safe and SYBR green. SafeCloner's special filter glasses and blue epi-LED illuminator allow the operator to view DNA gels at greater contrast and sensitivity than is possible with standard long wavelength UV transilluminators. Blue epi-LED illumination of gels is entirely harmless to DNA and operator alike, ensuring that the DNA within the gel remains free of UV-induced damage. Consequently, DNA fragments isolated from gels viewed using SafeCloner have dramatically improved cloning efficiency compared to DNA fragments eluted from UV-illuminated gels.

Ordering Information

CSL-ETBRCLONER	Complete unit for safe viewing of ethidium bromide stained gels		
CSL-ET/SYBRCLONER	Complete unit for safe and DNA damage free viewing of ethidium bromide, SYBR green and SYBR gold stained gels		
Each SafeCloner unit includes LED illuminator for gels up to 15x15cm, filter glasses and a mains plug-in power supply.			
CSL-GLASSES1	Filter glasses for CSL-ETBRCLONER, 1 pair	CSL-GLASSES	Filter glasses for CSL-ET/SYBRBR, 1 pair

- **Programmable microprocessor control**
- **Automatic monitoring of UV energy**
- **Small footprint with large interior**
- **Conspicuous front panel LED, with non-UV transmissible front door connected to safety interlock switches**

uv crosslinker

The UVIlink UV crosslinker is especially designed for binding nucleic acids to membranes. A membrane keypad facilitates manual or preset control of the desired UV dosage and exposure time, while a highly accurate microprocessor-controlled photo-feedback system maintains uniform output from each of the crosslinker's five 8-Watt UV bulbs. Other features comprise safety interlock switches to prevent accidental UV leakage during operation, a clearly visible LED, plus a large interior chamber and small footprint area. The crosslinker may be used in a variety of applications, such as colony or plaque lifts, UV sterilisation and gene mapping or DNA damage studies.

Technical Specifications

UV Source	5x8W UV Bulbs, 254, 302 or 365nm
Exposure Time	0 – 999.9 minutes
Energy Ranges	0 – 99.99 J or 0 – 9.999 J
Internal Dimensions	26x33x14.5cm (WxDxH)
Footprint	35x36cm

Ordering Information

CL-508.G	Shortwave crosslinker, 254nm	CL-508.M	Midrange crosslinker, 302nm	CL-508.BL	Longwave crosslinker, 365nm

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heaters and stirrers

- **Large work surface, 19 x 19 cm**
- **Space saving design, 20 x 23 cm Footprint**
- **Chemical resistant white ceramic top plate**
- **Safety LEDs indicate when heating or stirring**
- **Quick and easy adjustment of heating/mixing**

Cleaver Scientific hotplates, stirrers and hotplate-stirrers feature an exceptionally durable, chemically resistant, white ceramic work surface. Their space-efficient design (20 x 23 cm footprint), makes them ideal for use on crowded bench tops and inside cabinets.

Advanced microprocessor controls with convenient turn knobs allow quick, precise adjustment and maintenance of speed and temperature. A safety indicator LED on each front panel indicates when the heating and stirring functions have been activated. With a square 19 x 19 cm work surface, all three models are compatible with a wide variety of popular sizes of borosilicate glass beakers, flasks, bottles and other vessels.

The hotplate/magnetic stirrer model (CSL Hotplate) comes complete with a support rod for mounting thermometers and temperature probes.

Technical Specifications

Speed Range:	60-1500 rpm (stirring units only)
Temp. Range: (heating units only)	Ambient +5° to 380°C
Platform:	19 x 19cm
Control:	Quick Adjustment Knobs
Dimensions:	20(W) x 23(D) x 11.5(H) cm
Electrical Data:	120V, 60 HZ / 230V, 50/60 HZ

Ordering Information

CSL-HOTPLATE	CSL Hotplate, 19 x 19 cm
CSL-HOTSTIR	CSL Hotplate Magnetic Stirrer 19 x 19 cm
CSL-STIR	CSL Magnetic Stirrer, 19 x 19 cm

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quickspin

- **Supplied with both standard microtube and strip tube rotors**
- **Ideal for quick spin-downs and microfiltration**
- **Starts and stops in seconds**
- **Compact design**

The Quickspin 'Purple' is perfect for microfiltration and rapid spin-down of sample from the walls and caps of microcentrifuge tubes.

By occupying less than 6 inches square of bench space, the Quickspin 'Purple' has a very small footprint, making it easy to use in the lab. Rotors and adaptors, which may be easily interchanged, are supplied as standard to accommodate 1.5 ml, 0.5 ml and 0.4 ml tubes, as well as 0.2 ml strips and individual tubes.

A highly durable stainless steel hinge pin facilitates easy opening of the translucent lid, while an on/off switch is located on the side of the centrifuge to start and stop operation. Alternatively, with the switch in the 'on' position, the centrifuge can be started and stopped by closing and opening the lid.

Technical Specifications

Maximum speed	6000rpm
Maximum G Force	2,000 x g
Capacity	6 x 1.5/2.0 ml 2 x 0.2ml Strips
Dimensions (W x D x H)	15 x 15 x 11.7 cm
Weight	0.45 kg

Ordering Information

CSLQSPIN	Spectrafuge Mini complete with 1.5/2.0 ml rotor, strip tube rotor, 0.5 and 0.4 ml adapters, Purple lid

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vortex

- **Powerful, reliable motor with optimised counter balance**
- **Circular orbit for effective vortexing at any speed**
- **CombiCup head accepts a variety of tube sizes**
- **Versatile head attachment accessories for microplates and different tube sizes**

Cleaver Scientific's new variable speed Vortex Mixer combines fast, efficient mixing with minimal vibration. Unlike other vortex mixers using elliptical orbits, the CSLVORTEX true circular orbit facilitates uniform sample-vortexing even at low speed. The CombiCup™ head, which is supplied as standard, accepts many different tube sizes, while the unique overmoulding technology used in its manufacture provides a sturdy plastic core with non-slip TPE that fits optional heads for microplates, microtubes, PCR strip tubes, 15ml and 50ml tubes and blood vials.

CSLVORTEX may be used in 'touch' or continuous mode: 'touch' mode being activated by simply depressing the sample head and then stopped by releasing the pressure. An optimised counter balance system within the CSLVORTEX minimises vibration and movement of the unit during operation, whereas its lightweight construction and small footprint allows it to be readily transported and used in areas where space is restricted. The CSLVORTEX is also safe for use in temperature controlled environments, and may be used within a cold room.

Technical Specifications

Speed Range	115V	0 - 3400 RPM
	230V	0 - 2850 RPM
Operating Modes	Touch or Continuous	
Ambient Operating Range	4 - 65°C	
Dimensions (WxDxH)	14cm x 16cm x 13cm	
Weight	2.2kg	
Electrical	115V or 230V, 50/60Hz	

Ordering Information

CSLVORTEX	Cleaver Vortex Mixer with general purpose head	S0200-23	Optional Head Attachment for 8 x 15ml and 8 x 12/13mm Diameter Tubes
S0200-21	Optional Head Attachment for 24 x 1.5/2.0ml Tubes, 24 x 0.5ml Tubes and	S0200-24	Optional Head Attachment for 6 x 50ml Tubes
	32 X 0.2ml Tubes (or 4 Tube Strips)	S0200-25	Optional Head Attachment for 12 x 1.5/2.0ml Tubes, Held Horizontally
S0200-22	Optional Head Attachment for 1 Microplate or 64 x 0.2ml Tubes or 8 x 0.2ml	S0200-26	Optional Head Attachment for 4 x 15ml Tubes, Held Horizontally
	Tube Strips	S0200-27	Optional Head Attachment for 2 x 50ml Tubes, Held Horizontally

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MiniMix 3D shaker

- **The perfect speed and tilt for blotting and gel staining**
- **Three-dimensional motion**
- **Designed for use with Blot Boxes**

The Cleaver Scientific MiniMix combines the motions of orbital shaking and rocking to produce a gentle, but thorough, 3-D action that is perfect for antibody incubation of western blots and staining gels.

The pitch and speed of the Cleaver Scientific MiniMix are optimised to generate a tilt angle that is large enough to ensure uniform distribution of solutions, yet small enough to prevent the centre of the blot from drying out. This has the added benefit of allowing users to work with minimal volumes, thus conserving valuable probes and antibodies.

A non-slip rubber mat keeps the boxes in place on the agitating platform, which, along with the housing, is very easy to clean and decontaminate after use. The MiniMix's compact and light weight design allows it to be moved around the lab where needed. It is also safe for use in an incubator or cold room for temperature controlled reactions.

Technical Specifications

Speed	18rpm (115V) / 20 rpm (230V)
Motion	3-D, nutating
Tilt Angle	5°
Platform Size (WxD)	20x16.5cm
Ambient Operating Range	4-65°
Dimension (WxDxH)	20.3X17.8X10.5cm
Weight	0.88kg
Electrical	115/230V 50/60Hz

Blot Boxes

These gel staining/blotting boxes are available in 4 sizes and are the ideal accessory for incubating blots or staining gels. The two smaller sized boxes are available in packs of ten. The smallest box has dimensions of 9.1 x 6.6cm and a capacity for 3-5ml of solution.

This is ideal for incubating cut blot strips. The next box in the range holds 6-10ml of solution and is appropriate for mini gels and blots up to 11.7 x 8.9cm. Two larger boxes, available in single packs, can be used for staining gels or incubating blots up to 12 x 12cm or 20 x 16.5cm respectively.

Ordering Information

CSL3DSHAKER	MiniMix 3D Shaker with 20x16.5cm tray and non-slip rubber mat, 230V		
CSL-BB9X6	Gel/Blot box, 9.1 x 6.6cm, 3-5ml capacity, 10/pack	CSL-BB12X12	Gel/Blot box, 12 x 12cm, 1/pack
CSL-BB11X8	Gel/Blot box, 11.7 x 8.9cm, 6-10ml capacity, 10/pack	CSL-BB20X16.5	Gel/Blot box, 20 x 16.5cm, 1/pack

For 110 V AC, please add '-$' as a suffix to the appropriate code

cube dry baths

Cleaver Scientific's Cube digital dry baths are available in single and dual block models, and comprise a comprehensive range of interchangeable blocks. Each digital dry bath is compact, easy-to-use and excellent value for money.

Interchangeable quick-change blocks have fast heat-up times and reproducible temperature uniformity and accuracy, and may be used in a variety of applications, which include: restriction digestion, BUN, melting agar, coagulation studies, hybridisation, Hot Start PCR® reactions and DNA denaturation. Because of an impermeable moulded aluminium alloy block construction, each Cube dry bath may also be adapted as a mini water bath incubator if desired.

Both dry baths incorporate a digital microprocessor controller for accurate temperature control in 0.1°C increments from ambient +5°C to 150°C. Rapid and easy programming is facilitated by the easy to use arrow keys on the sloped front panel, while both the temperature and running time are shown simultaneously on the conspicuous dual digital LCD display. Two software options are available for data logging to a PC and computer control (please enquire).

- **Microprocessor control with digital performance for precise, accurate control**
- **Wide temperature control range with excellent uniformity**
- **Rapid temperature increase rate**
- **LCD screen showing timer and temperature simultaneously**
- **User temperature calibration**
- **Data logging and function control software available**

Ordering Information

SINGLE BLOCK		MD-B0.2	Block for 0.2 ml tube, 64 wells or for 0.2 ml PCR strip tubes for 8 wells x 8
TCDB-01	The Cube Dry Bath Incubator (one block unit); without block 220V	MD-B0.5	Block for 0.5 ml tube, 20 wells
DUAL BLOCK		MD-B1.5	Block for 1.5 ml tube, 20 wells
TCDB-02	The Cube Dry Bath Incubator (dual block unit); without block 220V	MD-B13	Block well size 13 mm, 20 wells
Accessories		MD-B17	Block for 15 ml centrifuge tube, 12 wells
MD-MP01-S	Block for Microplate; Titerplate Plain Block for Single Block Unit Only	MD-B20	Block well size 20 mm, 12 wells
MD-MP02-S	Block for 96 wells deep Microplate or PCR plate for Single Block Unit Only	MD-B25	Block well size 25 mm, 6 wells
MD-MP01-D	Block for Microplate; Titerplate Plain Block for Dual Block Unit Only	MD-B29	Block for 50 ml centrifuge tube, 4 wells
MD-MP02-D	Block for 96 wells deep Microplate or PCR plate for Dual Block Unit Only	MD-RS232	RS232 Cable
MD-B0.5/1.5	Double side block: one side for 1.5 or 2.0 ml tube, 20 wells; Opposite side for 0.5 ml tube, 30 wells	MD-DLSW	Single License Software Package for Datalogging
MD-B0.5PLUS1.5	Combination block : for 0.5 ml tube, 12 wells and for 1.5 or 2.0 ml tube, 12 wells (on the same side)	MD-PCSW	Single License Software Package for Datalogging and Computer-controlled Temperature Setting

For 110 V AC, please add '-$' as a suffix to the appropriate code

Custom made blocks also available

rockers and shakers

Technical Specifications

Cat. No.	MS-NOR	MS-NRC	MS-NRK	MW-23
Motion	Orbital	Reciprocal	Rocking	3-D Combi
Stroke Length	20mm	20mm	12°	20mm
Operation Mode	Orbital: 0.1 ~ 10.0 circular; 0.1 circular increment	Reciprocal:1~10 for 2.0 ~ 20 mm; 1 scale increment		Orbital and Rocking combined
Speed	0~200 rpm	5~100 rpm	5~100 rpm	5~100 rpm
Timer	0~9999m, ins, 1 min increment	0~9999m, ins, 1 min increment	0~9999m, ins, 1 min increment	0~9999m, ins, 1 min increment
Controller	Digital microprocessor controller	Digital microprocessor controller	Digital microprocessor controller	Digital microprocessor controller
Display	4 digital red LED	4 digital red LED	4 digital red LED	4 digital red LED
Operating Temperature	4~40°C	4~40°C	4~40°C	0~50°C
Carry Capacity	15 kg	15 kg	15 kg	15 kg
Adjustable Platform	Yes	Yes	Yes	Yes
Special Functions	2 way direction			Angle 0-25°
Platform Dimension	W260 x L260mm	W260 x L260mm	W260 x L260mm	W330 x L330mm
Operating Power	110 / 220V	110 / 220V	110 / 220V	110 / 220V
Weight 8 kg	8 kg	8 kg	8 kg	10 kg

Ordering Information

MS-NOR	Orbital shaker with 26 x 26cm platform and non slip rubber mat.
MS-NRC	Reciprocal shaker with 26 x 26cm platform and flat non slip rubber mat.
MS-NRK	Rocking Shaker with 26 x 26cm platform and flat non slip rubber mat.
MW-23	Combination 3-D shaker with 3-D shaking and rocking for maximal fluid movement; includes 26 x 26cm platform and flat non slip rubber mat
MW-WB	Hybridisation Water Bath (ambient to 95°C) for use with MW-23

For 110 V AC, please add '-$' as a suffix to the appropriate code

Cleaver Scientific rockers and shakers are available in four different models, each model offering benefits that include: outstanding uniform motion and low noise; microprocessor based keypads with digital control and display of preset time, continuous time, action scale and speed; and high quality stainless steel platforms with pop-on/pop-off installation holes to secure samples. All models are lightweight and portable for easy transportation from the bench to incubator and cold room alike, while additional platforms may be added for increased capacity.

Models are available as per Ordering Information below.

MW-23 3-D Combishaker

extreme temperature dry baths

Cleaver Scientific's Extreme Temperature dry baths have a working temperature range of -10°C to 100°C, making them broadly suited to techniques that use the extremities of temperature, such as DNA ligation (12°C) and denaturation (96°C). Each dry bath comprises a large conspicuous 2.6" LCD screen, and has operation modes for constant temperature and time, annealing and 1 to 4 programmable steps, each with a maximum of 9 cycles. The Extreme Temperature dry baths also benefit from micro-processor control and specially designed aluminium block inserts with superior cooling and heating properties. The Superior Extreme Temperature dry bath has a shallower block insert with enhanced thermal transfer properties. Optional function control software is available.

Ordering Information

Dry Baths			
MC-01N	Extreme Temperature Dry Bath Incubator; without block 110/220V	MC-B0.5+1.5	Combination: 1.5 or 2.0 ml tube, 15 well and 0.5 ml tube, 15 wells
MC-01S	Superior Temperature Dry Bath Incubator; without block 110/220V	(On the same side)	
Accessories		MC-B0.2+0.5+1.5	Combination: 0.2 ml tube (or Strip tube for 8 wells), 24 wells, 1.5 or 2.0 ml
MC-MP01	For Microplate; Titerplate (Plane bottom)		tube, 10 well and 0.5 ml tube, 10 wells
MC-MP02	For 96 wells Deep Microplate; PCR Plate or 0.2 ml PCR Strip Tube	MC-B0.2H	(1/2) Half Block for 0.2 tube or PCR Strip tube for 8 wells, 40 wells
MC-B0.5	For 0.5 ml tube, 30 wells	MC-B0.5H	(1/2) Half Block for 0.5 ml tube, 15 wells
MC-B1.5	Well size: 10 mm, For 1.5 or 2.0 ml tube, 30 wells	MC-B1.5H	(1/2) Half Block for 1.5 or 2.0 ml tube, 15 wells

Other blocks also available

For 110 V AC, please add '-$' as a suffix to the appropriate code

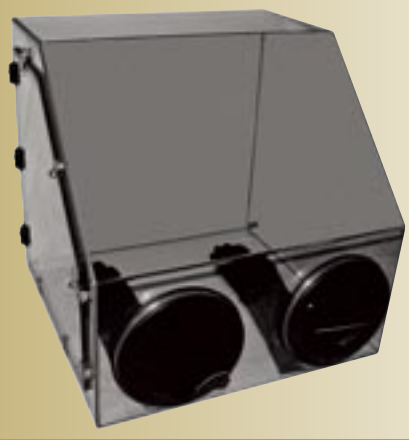
stirring water baths

A powerful magnetic stirring mechanism combined with high wattage heating allows each Cleaver Scientific stirring water bath to maintain temperatures to a maximum 99°C. Available in 10 and 20 litre bath capacities, these water baths comprise as many as 3 stirrers for a maximum stirring speed of 1800rpm. Each bath includes a conspicuous front-panel LCD, reproducible microprocessor control of temperature within 0.1°C increments, a corrosion resistant stainless steel interior and automatic alarm and safety shutdown mechanism. Optional data logging and PC control software is also available.

Ordering Information

SWB-10L-1	Stirring Water Bath 10L with 1 built-in stirrer	ACCESSORIES	
SWB-10L-2	Stirring Water Bath 10L with 2 built-in stirrers	SWB-LID10	Transparent lid for 10L stirring water bath
SWB-20L-1	Stirring Water Bath 20L with 1 built-in stirrer	SWB-LID20	Transparent lid for 20L stirring water bath
SWB-20L-3	Stirring Water Bath 20L with 3 built-in stirrers		

For 110 V AC, please add '-$' as a suffix to the appropriate code



glove boxes

Available in 4 sizes, Cleaver Scientific glove boxes are an ideal cost-effective solution for those scientists performing functions where containment is paramount. A robust construction from non-reactive polycarbonate allows each glove box to be used with inert gases such as helium, nitrogen and argon, making them well suited to functions requiring the exclusion of atmospheric oxygen and moisture. Each box, which includes hermetically-sealed gauntlets and a side panel as standard, provides a safe barrier between the worker and any potential contaminant. These boxes may also be supplied with airlocks and pressure-relieving valves at little extra cost.

Ordering Information

CSL-GB24	Standard 2 port 60 x 60 x 60cm	For additional accessories, please add the suffixes as follows (e.g. CSL-GB24A)	
CSL-GB36	Standard 2 port 90 x 60 x 60cm	A	Air Lock only
CSL-GB48	Standard 2 port 120 x 60 x 60cm	V	Valves only
CSL-GB60	Standard 2 port 150 x 60 x 60cm	AV	Air Lock and Valves

hybridisation/incubators

With 21 models available, Cleaver Scientific incubators offer the utmost in choice and flexibility to the laboratory scientist. Each incubator model comprises microprocessor control of temperature in precise 0.1°C increments as well as continuous and programmable timer function, which are easily viewed within a 2.6" LCD screen. Advanced ventilation design technology maintains temperature uniformity and accuracy within ±0.2°C. The standard incubator model is supplied with stainless steel mesh shelves, while other more sophisticated models are available with specialist vortex, orbital, rocking and reciprocal shaking platforms. All of the incubators, except the basic model, may be supplied with hybridisation rotisseries for enhanced function.

HYBRIDBASIC

Entry model, HYBRIDBASIC provides a uniform temperature environment, controlled by a digital microprocessor. The internal air circulation system ensures that the temperature is homogenous while the user friendly, intuitive interface and digital display allow easy operation and control.

HYBRIDVX

HYBRIDVX features the same digitally controlled environment with the added benefit of a vortex platform for 4 microplates. Vortex action can vibrate from 5-1500rpm.

HYBRIDROK

The HYBRIDROK incubator includes a rocking shaker platform which allows the mixing of different sized containers simultaneously in a uniform temperature environment. The platform is 270mm x 200mm, allows stacking of an additional platform and is controllable from 5-100rpm.

HYBRIDREC

The HYBRIDREC incubator has a reciprocating platform enabling the user to place samples on a flat surface when only side to side motion is required on a 270mm x 200mm stackable surface. The reciprocating action can be controlled from 5-100rpm.

HYBRIDORB

The HYBRIDORB is equipped with an orbital shaker which can rotate from 0 - 200rpm. The platform has fittings which allow different sized samples to be processed at one time. An additional platform can be stacked, increasing capacity.

HYBRIDORB-R-8,-16 & -24

The HYBRIDORB-R incubator has all the benefits of the HYBRIDORB but has the added versatility of the rotisserie system for holding the full variety of hybridization tubes available.

HYBRID-R-8, -16 & 24

The HYBRID-R incubator has all the features of the HYBBASIC with the added benefit of a Rotisserie system. The rotisserie system allows for up to 24 hybridization tube samples to be incubated at a time. Three different rotisserie options are available for 8 x 35mm tubes, 16 x 50ml tubes or 24 x 15ml tubes.

HYBRIDVX-R-8, -16 & 24

The HYBRIDVX-R incubator has all the benefits of the HYBRIDVX but has the added versatility of the rotisserie system for holding the full variety of hybridization tubes available.

HYBRIDROK-R-8, -16 & 24

The HYBRIDROK-R incubator has all the benefit of the HYBRIDROK but has the added versatility of the rotisserie system for holding the full variety of hybridization tubes available.

HYBRIDREC-R-8, -16 & 24

The HYBRIDREC-R incubator has all the benefits of the HYBRIDREC but has the added versatility of the rotisserie system for holding the full variety of hybridization tubes available. The system allows stacking of an additional platform.

HybridBASIC

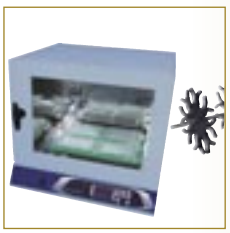
- **Digital Microprocessor Control**
- **128 x 64 Dot Matrix Display**
- **Chamber Temperature: Ambient to 85°C**
- **Temperature Increase: 0.1°C**
- **Temperature Uniformity**
- **Chamber Temperature Accuracy at 37°C ± 0.2°C**

Technical Specifications

Chamber Temperature	Ambient to 85°C
Temperature Increase	0.1°C
Temperature Uniformity in Working Area at 37°C	± 0.2°C
Chamber Temperature Accuracy at 37°C	± 0.2°C
Rotisserie speed (all models)	5-100 rpm
Vortex platform speed	5-1500 rpm
Orbital platform speed	0-200 rpm
Rocking platform speed	5-100 rpm
Reciprocal platform speed	5-100 rpm
Chamber Dimensions	340x260x250 mm
Overall Dimensions	360x440x430 mm
Weight	25 Kg (approx)

HybridREC-R-8, -16, -24

HybridORB-R-8, -16, -24



HybridVX-R-8, -16, -24

HybridROK-R-8, -16, -24

Hybrid-R-8, -16, -24

HybridORB

Ordering Information

		Including Hybridisation Rotisserie		
Incubator System		**8x 40mm Tube Rotisserie**	**16x 40ml conical tube rotisserie**	**24x 15ml tube rotisserie**
CSL-HYBRIDBASIC	Incubator only with 2 stainless steel shelves	n/a	n/a	n/a
CSL-HYBRIDVX	Vortex Incubator with 200x300mm platform for 4 microplates	CSL-HYBRIDVX-R8	CSL-HYBRIDVX-R16	CSL-HYBRIDVX-R24
CSL-HYBRIDROK	Rocking Incubator with 270x200mm platform	CSL-HYBRIDROK-R8	CSL-HYBRIDROK-R16	CSL-HYBRIDROK-R24
CSL-HYBRIDREC	Reciprocal Incubator with 270x200mm platform	CSL-HYBRIDREC-R8	CSL-HYBRIDREC-R16	CSL-HYBRIDREC-R24
CSL-HYBRIDORB	Orbital Incubator with 270x200mm platform	CSL-HYBRIDORB-R8	CSL-HYBRIDORB-R16	CSL-HYBRIDORB-R24
n/a	Hybridisation Incubator	CSL-HYBRID-R8	CSL-HYBRID-R16	CSL-HYBRID-R24
Accessories				
CSL-HYB-SSMP	Stainless Steel Mesh Plate 32.5 x 34.5 cm for MO-01	CSL-HYBFH-250	250 ml Flask Holder	
CSL-HYB-SH	Supporting Holders for Stainless Steel Mesh Plate, pack of 4	CSL-HYBFH-500	500 ml Flask Holder	
CSL-HYB-8RT	35 mm tube Rotisserie for 8 tubes	CSL-HYBBT40X150	Glass Bottle 40 x 150 mm	
CSL-HYB-16RT	50 ml conical tube Rotisserie for 16 tubes	CSL-HYBBT40X200	Glass Bottle 40 x 200 mm	
CSL-HYB-24RT	15 ml conical tube Rotisserie for 24 tubes	CSL-HYBBT40X300	Glass Bottle 40 x 300 mm	
CSL-HYB-P2720	27 x 20 cm Platform for Rocking Shaker, Reciprocal Shaker, Orbital Shaker and Vortex Shaker			

For 110 V AC, please add '-$' as a suffix to the appropriate code

Please enquire about the lead times of these products before ordering.

UV sterilisation cabinets

- **Inactivates nucleic acids in 5 to 30 minutes**
- **Doors fitted with safety switches**
- **Complete with four powerful, timer controlled UV bulbs**
- **Efficient decontamination of the complete work surface**
- **Suitable for work with ^{32}P**

These UV Sterilisation Cabinets provide a convenient area for setting up PCR reactions in a nucleic acid free environment thus limiting PCR reaction contamination.

Acting effectively as a low cost alternative to a clean room, the powerful UV lights on the cabinets denature nucleic acids in 5 to 30 minutes making them unsuitable for amplification. The cabinet incorporates safety features to prevent user exposure to UV light.

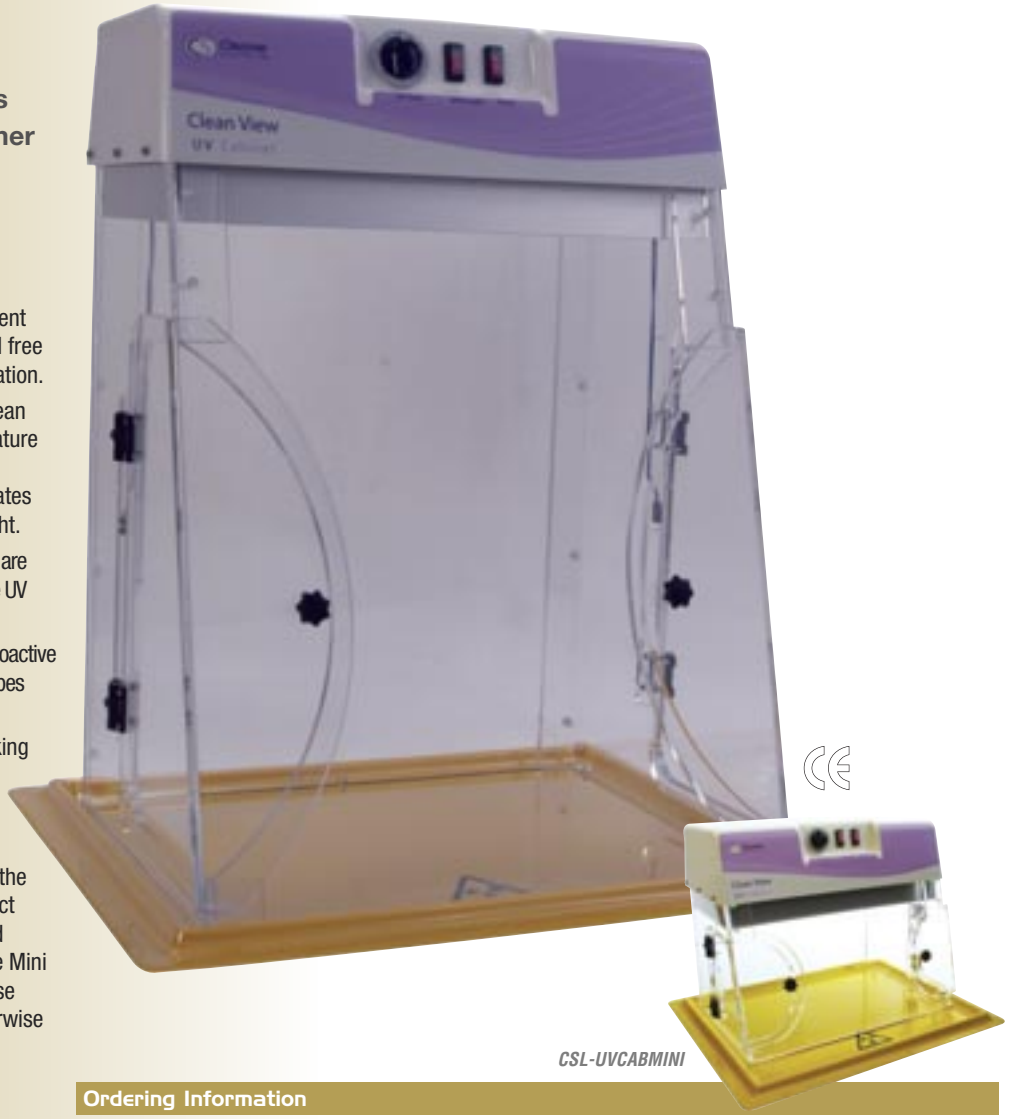
The UV lights themselves are timer controlled and there are safety switches on the cabinets doors which turn off the UV lights when opened.

The cabinets also act as an efficient shield of beta radioactive emissions and can therefore be safely used with isotopes such as ^{32}P.

White light provides excellent visibility when working within the cabinets.

For use with trays of size 68 x 54cm, CSR-TW4/TY4/TL4.

With the benefits comparable to those offered by the CSL-UVCAB, the new Mini UV Cabinet is the perfect solution for laboratories constrained by space and budget. A reduced height and footprint allows the Mini UV Cabinet to fit snugly and conveniently into those small areas within the laboratory that would otherwise remain unused.



CSL-UVCABMINI

Technical Specifications

UV Lights	Maxi	4 x 15 Watt	Mini	4 x 15 Watt
White Light	Maxi	15 Watt	Mini	15 Watt
Dimensions	Maxi Mini	770 (H) x 560 (W) x 420mm (D) 510 (H) x 560 (W) x 350mm (D)		
Weight	Maxi	19 Kg	Mini	12 Kg

Ordering Information

CSL-UVCAB	**UV sterilisation cabinet with timer, four UV lights and white light, no Tray**
CSL-UVCABMINI	**Mini UV sterilisation cabinet with timer, UV light and white light, no Tray**
CSL-UVTUBE	Replacement UV tube for cabinets
CSL-WHITETUBE	Replacement White Light tube for cabinets
CSR-TW4	General Purpose Tray White - 68 x 54cm
CSR-TY4	Radiation Hazard Tray Yellow - 68 x 54cm
CSR-TL4	Liners - 68 x 54cm, Pk/25 (for cabinet)

For 110 V AC, please add '-$' as a suffix to the appropriate code

other products

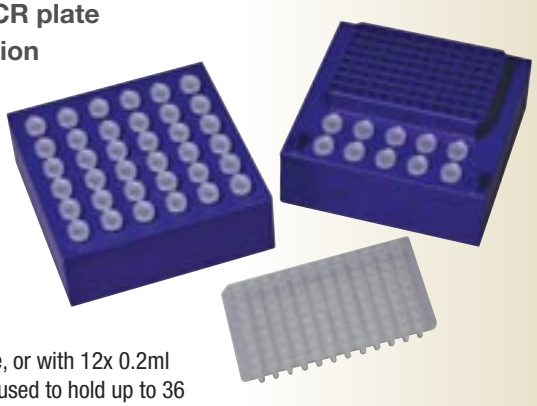
Also on offer through Cleaver Scientific are: -

1. Custom combs and gel trays
2. Pipettes
3. Thermal Cyclers
4. Fermentation Systems
5. Transfection Systems
6. Balances

For flyers and pricing, please contact sales@cleaverscientic.com or phone +44 (0)1788 565300.

coolcube

- **Maintains 0°C for four hours**
- **Holds both microtubes and a PCR plate**
- **Can be used as a PCR workstation**

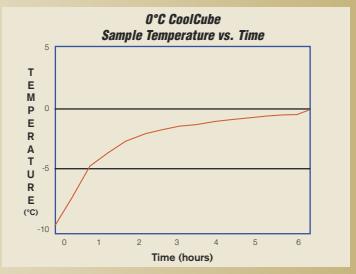


The CoolCube is designed to store samples safely on the lab bench without sample degradation caused by temperature increase or fluctuation. The CoolCube maintains temperature at approximately 0°C for up to four hours. Simply place the CoolCube in a freezer overnight and it will be ready to use.

One side of the CoolCube can be used as a convenient PCR workstation for 12 standard 1.5/2.0ml microtubes with one 96 well PCR plate, or with 12x 0.2ml strips or 96x0.2ml tubes. The other side may be used to hold up to 36 standard 1.5/2.0ml microtubes.

Technical Specifications

Temperature:	0°C for up to 4 hours
Capacity:	36 x 1.5ml 96 x 0.2ml 12 x 0.2ml PCR Strips 1 x 96 well PCR Plate
Dimensions:	142 x 142 x 63.5mm
Weight:	900g
Material:	Durastar Polymer



ice buckets

- **Durable plastic construction**
- **Easily cleaned**
- **Excellent long term thermal storage**

Cleaver Scientific Ice Buckets are constructed of durable plastic and offer both robustness and long life. They will also withstand reasonable use with dry ice. Lids are available for the the large bucket.

Ordering Information

CSLIB	Large Ice Bucket - White	CSMIB	Mini Ice Bucket - White
CSLIBLID	Lid For Large Ice Bucket - White	CSL-COOLCUBE	Coolcube Storage Rack

tube racks

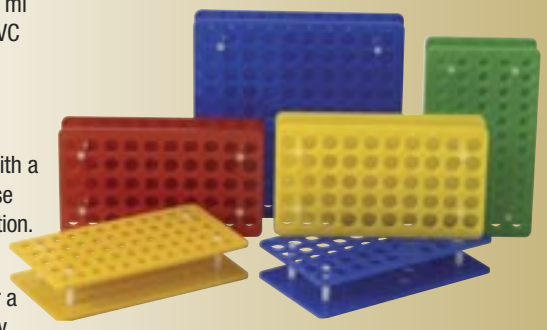
Available in four different colours – red, blue, green and yellow – for easy identification, Cleaver Scientific tube racks are ideal for scientists performing techniques requiring multiple 0.5, 1.5 and 2 ml tubes. All tube racks are made from either standard 3mm acrylic for ordinary use or autoclavable PVC that is suitable for work in containment areas, such as tissue culture rooms, where sterilisation of equipment is necessary after use.

MicroRacks

Microracks are ideal for routine use with 60x 0.5ml or 50x or 100x 1.5ml microcentrifuge tubes. With a small footprint of 80x80mm these racks are perfect for areas where space is limited. Because these racks have an open base, samples may be placed in direct contact with ice or water for sample incubation.

Combi-Racks

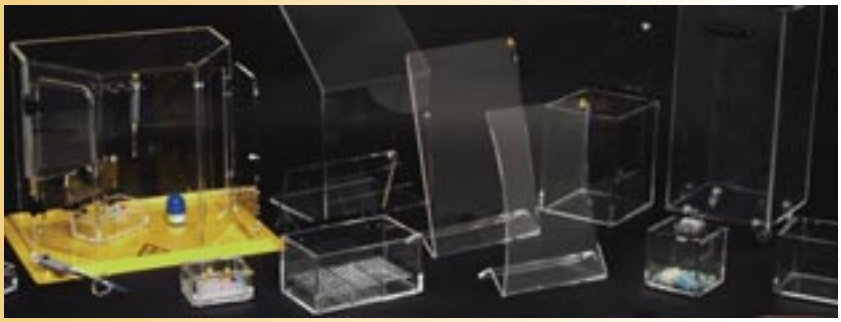
Configured in 6 rows of 12 holes, with Row 1 accommodating 12x 1.5/2ml tubes, and Rows 2-6 for a maximum 48x 0.2ml tubes, Cleaver Scientific Combi-Racks are well-suited to thermal cyclers or dry baths with blocks for up to sixty 0.2/1.5ml tubes.



Ordering Information

CSR-TR1B	60 X 0.5 ml Tube Rack - Blue	CSR-TR2B	50 x 1.5 ml Tube Rack - Blue	CSR-TR3BPVC	100 X 1.5 ml Tube Rack - Blue PVC - Autoclavable
CSR-TR1BPVC	60 X 0.5 ml Tube Rack - Blue PVC - Autoclavable	CSR-TR2BPVC	50 x 1.5 ml Tube Rack - Blue PVC - Autoclavable	CSR-TR3G	100 X 1.5 ml Tube Rack - Green
CSR-TR1G	60 X 0.5 ml Tube Rack - Green	CSR-TR2G	50 x 1.5 ml Tube Rack - Green	CSR-TR3GPVC	100 X 1.5 ml Tube Rack - Green PVC - Autoclavable
CSR-TR1GPVC	60 X 0.5 ml Tube Rack - Green PVC - Autoclavable	CSR-TR2GPVC	50 x 1.5 ml Tube Rack - Green PVC - Autoclavable	CSR-TR3R	100 X 1.5 ml Tube Rack - Red
CSR-TR1R	60 X 0.5 ml Tube Rack - Red	CSR-TR2R	50 x 1.5 ml Tube Rack - Red	CSR-TR3Y	100 X 1.5 ml Tube Rack - Yellow
CSR-TR1RPVC	60 X 0.5 ml Tube Rack - Red PVC - Autoclavable	CSR-TR2Y	50 x 1.5 ml Tube Rack - Yellow	CSR-TR3YPVC	100 X 1.5 ml Tube Rack - Yellow PVC - Autoclavable
CSR-TR1Y	60 X 0.5 ml Tube Rack - Yellow	CSR-TR2YPVC	50 x 1.5 ml Tube Rack - Yellow PVC - Autoclavable		
CSR-TR1YPVC	60 X 0.5 ml Tube Rack - Yellow PVC - Autoclavable	CSR-TR3B	100 X 1.5 ml Tube Rack - Blue		

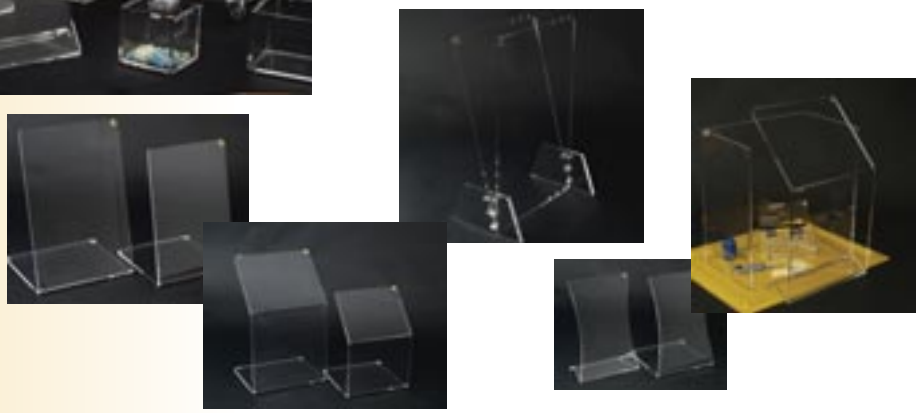
radiation safety



Available in standard 10mm beta-protecting acrylic, 12mm gamma-attenuating lead acrylic and also as duo shielding for protection against both types of emission, Cleaver Scientific's comprehensive range of Radiation Safety Products comprises a large selection of shields, boxes, waste bins, trays, plus assorted accessories and cabinets.

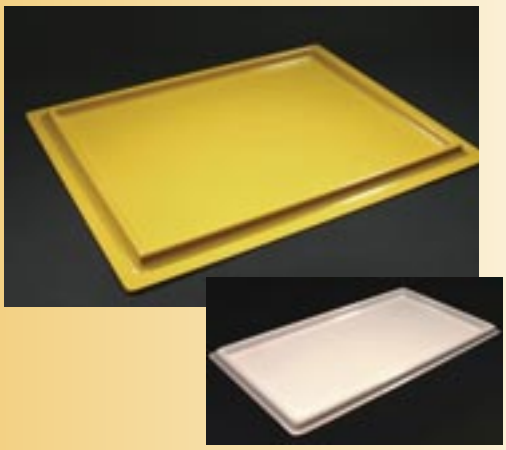
Shields

Supplied in small, medium and large sizes and with curved base 15cm-deep for use with safety trays or flat 30x30cm base for under-the-bench protection. A range of angles offers increased manoeuvrability, while clear optical acrylic aids visualisation.



Ordering Information

BETA	GAMMA		BETA	GAMMA	
CSR-S1	CSR-S1G	Small Fixed 15° Angle - Flat Base 30 x 45cm, Base 30 x 30cm	CSR-S3	CSR-S3G	3-Sided Front 46 x 50cm, Sides 30 x 50cm
CSR-S1T	CSR-S1TG	Small Fixed 15° Angle - Curved Base 30 x 45cm	CSR-S4	CSR-S4G	Hourglass Shield - Flat Base 30 x 45cm, Base 30 x 30cm
CSR-S2	CSR-S2G	Large Fixed 15° Angle - Flat Base 35 x 53cm, Base 35 x 30cm	CSR-S4T	CSR-S4TG	Hourglass Shield - Curved Base 30 x 45cm
CSR-S2T	CSR-S2TG	Large Fixed 15° Angle - Curved Base 35 x 53cm	CSR-SFLEXI	CSR-SFLEXIG	Shield - Adjustable 35 x 54 or 54 x 35cm
CSR-S10	CSR-S10G	Small Fixed 45° Angle - Flat Base 30 x 45cm, Base 30 x 30cm	CSR-SF	CSR-SFG	Base Plate 45 x 41cm
CSR-S10T	CSR-S10TG	Small Fixed 45° Angle - Curved Base 30 x 45cm	-	CSR-SDUO	DuoShield - Curved Base, Beta/Gamma 30 x 45cm
CSR-S20	CSR-S20G	Large Fixed 45° Angle - Flat Base 35 x 60cm, Base 30 x 30cm	-	CSR-SFLEXITG	Shield - Adjustable, 35 x 54 or 54 x 35cm, 35mm thick
CSR-S20T	CSR-S20TG	Large Fixed 45° Angle - Curved Base 35 x 60cm			



Trays and Liners

Available in general purpose, biohazard and radiation safety formats, spilltrays provide a re-usable work area with the added benefit of safe containment of spillages and lab bench protection. All trays supplied with one free liner when purchased. Additional environmentally friendly APET liners provided in packs of 25.

Ordering Information

Tray Size	Radiation Hazard Tray, Yellow	BioHazard Tray, White	General Purpose Tray, White	APET liners, pk 25
46x26cm	CSR-TY1	CSR-TO1	CSR-TW1	CSL-TL1
54x34cm	CSR-TY2	CSR-TO2	CSR-TW2	CSL-TL2
57x54cm	CSR-TY3	CSR-TO3	CSR-TW3	CSL-TL3
68x54cm	CSR-TY4	CSR-TO4	CSR-TW4	CSL-TL4
70x46cm	CSR-TY5	CSR-TO5	CSR-TW5	CSL-TL5
113x54cm	CSR-TY6	CSR-TO6	CSR-TW6	CSL-TL6

Cabinets

Cleaver Scientific cabinets provide a convenient area to carry out work with beta and gamma emitting isotopes with complete all round protection. Each cabinet's 49 x 55 x 37cm dimensions offer a large working area without impeding vision, either in a standing or seated position.

Ordering Information

BETA	GAMMA	
CSR-CAB	CSR-CABG	Beta Work Cabinet, 49 x 55 x 37cm

radiation safety

Storage Boxes, Waste Bins and Cabinet

Cleaver Scientific storage boxes are manufactured with hinged lids and accommodate interchangeable inserts that hold microtubes, centrifuge tubes, scintillation vials, universals, cryotubes and falcon tubes. Also supplied is our range of floor-standing and benchtop bins with anti-slip feet and hinged lids. These serve as an ideal solution for short-term storage of radioactive waste or radioisotopes. Both the Beta and Gamma storage bins are available in five sizes, while the two largest bin models have wheels for easy transportation. Optional heavy duty drawstring bags may also be purchased.

Ordering Information

Boxes / Inserts

BETA	GAMMA	Box Size	BETA	GAMMA	Box Size
CSR-B0.4	CSR-B0.4G	Mini 5.5 x 8.5 x 8.5cm	CSR-BDUO	CSR-BDUOG	Duo Box 7 x 10 x6cm
CSR-B0.8	CSR-B0.8G	Midi 6 x 16.5 x 8.5cm	CSR-BLOCK	CSR-BLOCKG	Block for 4 x 1.5ml Eppendorf tubes 5 x 3.5 x 14cm
CSR-B6.5	CSR-B6.5G	Maxi 14 x 28 x 16.5cm	CSR-BLOCKL	CSR-BLOCKLG	Cover for B4 1 x 3.5 x 14cm
CSR-B3.5	CSR-B3.5G	Box for four way racks 14 x 17.5 x 15cm	CSR-STORE	CSR-STOREG	Beta-Storage/Transport Block 7 x 15 x 12cm
CSR-B8	CSR-B8G	Transport Box 7.5 x 29.5 x 38cm	CSR-COV	CSR-COVG	Carboy Cover 59 x 38 x 38cm
CSR-R1.5		Mini Box Insert - 16 x 1.5ml tubes	CSR-R20		Maxi Box Insert - 8 x 20ml Scintillation vials
CSR-R50		Maxi Box Insert - 8 x 50ml Centrifuge tubes	CSR-RDUO		Midi Box Insert - 16 x 1.5 and 16 x 0.5ml tubes
CSR-R0.5		Mini Box Insert - 20 x 0.5ml tubes	CSR-R5		Maxi Box Insert - 15 x 5ml Scintillation vials
CSR-R3F		Maxi Box Insert - 3 x Falcon tubes, 8 x 1.5ml tubes	CSR-R2		Midi Box Insert - 32 x 2ml Cryotubes
CSR-R1.5L		Midi Box Insert - 32 x 1.5ml Eppendorf tubes	CSR-RU		Maxi Box Insert - 8 x Universals
CSR-R2F		Maxi Box Insert - 2 x Falcon tubes, 8 x 1.5ml tubes	CSR-R15		Maxi Box Insert - 15 x 15ml Centrifuge tubes
CSR-R0.5L		Midi Box Insert - 40 x 0.5ml Eppendorf tubes			

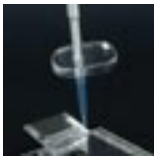
Ordering Information

Bins / Bags

BETA	GAMMA	Bin Size	BETA	GAMMA	Bin Size
CSR-B1	CSR-B1G	1L, use with bag CSR-BAG1 13 x 10 x 8cm	CSR-B5TIP	-	Large 5L, use with bag CSR-BAG2 33 x 13 x 13cm
CSR-B2TIP	CSR-B2TIPG	2L, use with bag CSR-BAG1 13 x 13x 13cm	CSR-B20	CSR-B20G	20L, use with bag CSR-BAG5 38 x 21.5 x 23.5cm
CSR-B2MCTIP	CSR-B2MCTIPG	2L, use with bag CSR-BAG1 13 x 13x 13cm	CSR-B53	CSR-B53G	53L, use with bag CSR-BAG5 40 x 49 x 27cm
CSR-B3	CSR-B3G	3.3L, use with bag CSR-BAG1 15 x 15 x 15cm	CSR-B47	-	47L with Wheels, use with bag CSR-BAG6 58 x 28.5 x 27cm
CSR-B10	CSR-B10G	10L, use with bag CSR-BAG2 25 x 20 x 20cm	CSR-B122	-	122L with Wheels, use with bag CSR-BAG6 74 x 41 x 41cm
CSR-B15	CSR-B15G	15L, use with bag CSR-BAG2 29.5 x 21.5 x 23.5cm			
CSR-BAG1		Drawstring Radiation Bags, pk/25 15 x 15 x 15cm	CSR-BAG5		Drawstring Radiation Bags, pk/25 40 x 49 x 27cm
CSR-BAG2		Drawstring Radiation Bags, pk/25 25 x 20 x 20cm	CSR-BAG6		Drawstring Radiation Bags, pk/25 61 x 28 x 28cm

Accessories

Other accessories available include pipette guards, radiation tape and warning signs and labels.



Ordering Information

BETA	GAMMA			
CSR-PB2	CSR-PB2G	Pipette Shield - Biohit PS1000 Beta	CSR-LABS	Radiation Labels, pk/25 25x25mm
CSR-PB1	CSR-PB1G	Pipette Shield - Biohit PS200 Beta	CSL-LABL	Radiation Labels, pk/25 50x50mm
CSR-PB3	CSR-PB3G	Pipette Shield - Biohit PS5000 Beta	CSR-RADTAPE	Radiation Tape, pk/25 25mm x 66m
CSR-PG3	CSR-PG3G	Pipette Shield - Gilson P1000 Beta		
CSR-PG1	CSR-PG1G	Pipette Shield - Gilson P20/100 Beta		
CSR-PG2	CSR-PG2G	Pipette Shield - Gilson P200 Beta		

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www.cleaverscientific.com

Cleaver Scientific Ltd

Cleaver Scientific Ltd
Rugby,
Warwickshire
United Kingdom

t | +44 (0)1788 565300
f | +44 (0)1788 552822
e | info@cleaverscientific.com
e | sales@cleaverscientific.com
w | www.cleaverscientific.com

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